U.S. DEPARTMENT OF COMMERCE
National Technical Information Service

PB-286 880

Water Resources Data for Pennsylvania Water Year 1977. Volume 1 Delaware River Basin

(U.S.) Geological Survey, Harrisburg, PA Water Resources Div

Jun 78

PB 286880

Water Resources Data for Pennsylvania

Water Year 1977

Volume 1. Delaware River Basin

U.S. DEPARTMENT OF THE INTERIOR
MARCH 3, 1849

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT PA-77-1

Prepared in cooperation with the Pennsylvania Department of
Environmental Resources, the Philadelphia Water Department
and with other State, municipal and Federal agencies

REPRODUCED BY
NATIONAL TECHNICAL
INFORMATION SERVICE
U. S. DEPARTMENT OF COMMERCE
SPRINGFIELD, VA. 22161

BIBLIOGRAPHIC DATA SHEET

1. Report No. USGS/WRD/HD-78/031

2.

3. Recipient's Accession No. PB286880

4. Title and Subtitle
Water Resources Data for Pennsylvania, Water Year 1977
Volume 1. DELAWARE RIVER BASIN

5. Report Date June 1978

6.

7. Author(s)

8. Performing Organization Rept. No. USGS-WDR-PA-77-1

9. Performing Organization Name and Address
U.S. Geological Survey, Water Resources Division
Federal Building
P.O. Box 1107
Harrisburg, Pennsylvania 17108

10. Project/Task/Work Unit No.

11. Contract/Grant No.

12. Sponsoring Organization Name and Address
U.S. Geological Survey, Water Resources Division
Federal Building
P.O. Box 1107
Harrisburg, Pennsylvania 17108

13. Type of Report & Period Covered Annual
Oct. 1, 1975 to Sept.30 1976

14.

15. Supplementary Notes Prepared in cooperation with the Commonwealth of Pennsylvania and with other agencies.

16. Abstracts Water resources data for the 1977 water year for Pennsylvania consist of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of ground water. This report contains discharge records for 82 gaging stations; stage and contents for 10 lakes and reservoirs; water quality for 34 gaging stations, 41 partial-record stations, and water levels for 16 observation wells. Also included are 42 crest-stage partial-record stations and 38 low-flow partial-record stations. Additional water data were collected at various sites, not involved in the systematic data-collection program, and are published as miscellaneous measurements. These data represent that part of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in Pennsylvania.

17. Key Words and Document Analysis. 17a. Descriptors

*Pennsylvania, *Hydrologic Data, *Surface Water, *Ground Water, *Water Quality, Flow Rate, Gaging stations, Lakes, Reservoirs, Chemical Analyses, Sediment , Water Temperatures, Sampling Sites, Water Levels, Water Analyses.

17b. Identifiers/Open-Ended Terms

17c. COSATI Field/Group

18. Availability Statement No restriction on distribution. This report may be purchased from NTIS, U.S. Department of Commerce, Springfield, Virginia 22161

19. Security Class (This Report) UNCLASSIFIED

20. Security Class (This Page UNCLASSIFIED

21. No. of Pages 373

22. Price PCA16

FORM NTIS-35 (REV. 10-73) ENDORSED BY ANSI AND UNESCO. THIS FORM MAY BE REPRODUCED USCOMM-DC 8265-P74

Water Resources Data
for
Pennsylvania
Water Year 1977

Volume 1. Delaware River Basin

U.S. DEPARTMENT OF THE INTERIOR
MARCH 3, 1849

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT PA-77-1

Prepared in cooperation with the Pennsylvania Department of Environmental Resources, the Philadelphia Water Department and with other State, municipal and Federal agencies

1b

UNITED STATES DEPARTMENT OF THE INTERIOR
CECIL D. ANDRUS, Secretary

GEOLOGICAL SURVEY
H. W. Menard, Director

For additional information write to
District Chief, Water Resources Division
U.S. Geological Survey
P.O. Box 1107
Harrisburg, Pennsylvania 17108

1978

PREFACE

This report was prepared by personnel of the Pennsylvania district of the Water Resources Division of the U.S. Geological Survey under the supervision of N. H. Beamer, District Chief, and J. E. Biesecker, Regional Hydrologist, Northeastern Region. It was done in cooperation with the State of Pennsylvania and with other agencies.

This report is one of a series issued State by State. General direction for the series is by J. S. Gragwall, Jr., Chief Hydrologist, U.S. Geological Survey, and G. W. Whetstone, Assistant Chief Hydrologist for Scientific Publications and Data Management.

Data for Pennsylvania are in three volumes as follows:

Volume 1. Delaware River Basin
Volume 2. Susquehanna and Potomac River Basins
Volume 3. Ohio River and St. Lawrence River Basins

Preceding page blank ✓

CONTENTS

Page
Preface III
List of gaging stations, in downstream order, for which records are published VI
Introduction 1
Cooperation 1
Hydrologic conditions 2
Definition of terms 6
Downstream order and station numbers 10
Numbering system for wells and miscellaneous sites 10
Special networks and programs 11
Explanation of stage and water-discharge records 11
  Collection and computation of data 11
  Accuracy of field data and computed results 13
  Other data available 13
Explanation of water-quality records 13
  Collection and explanation of data 13
  Water analysis 13
  Water temperatures 14
  Sediment 14
Explanation of ground-water level records 14
  Collection of the data 14
Publications on techniques of water-resources investigations 15
Gaging station records 21
Discharge at partial-record stations and miscellaneous sites 309
  Low-flow partial-record stations 309
  Crest-stage partial-record stations 313
  Miscellaneous sites 318
  Saucon Creek seepage investigation 319
Analyses of samples collected at water-quality partial-record stations 320
Ground-water level records 355
Index 363

ILLUSTRATIONS

Figure 1. Comparison of discharge at Bush Kill at Shoemakers during 1977 water year with median discharge for period 1941-70 3
2. Comparison of discharge at Schuylkill River at Pottstown during 1977 water year with median discharge for period 1941-70 4
3. Comparison of 1977 water levels in network observation wells with (a) 1976 water levels and (b) monthly mean water levels for period of record 5
4. System for numbering wells and miscellaneous sites 10
5. Map showing locations of data collection stations 16
6. Map showing locations of partial-record data collection stations 17
7. Map showing locations of Philadelphia data collection stations 18
8. Map showing locations of ground-water level wells 19
9-12. Double mass accumulation of annual suspended-sediment discharge versus annual water discharge.
  9. Schuylkill River at Berne 177
  10. Schuylkill River at Manayunk, Philadelphia 213
  11. Brandywine Creek at Chadds Ford 289
  12. Brandywine Creek at Wilmington, DE 294

TABLES

Table 1-4. Suspended-sediment concentration-duration table,
  1. Schuylkill River at Berne 177
  2. Schuylkill River at Manayunk, Philadelphia 213
  3. Brandywine Creek at Chadds Ford 289
  4. Brandywine Creek at Wilmington, DE 294

GAGING STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED

(Letter after station name designates type of data: (d) discharge, (c) chemical, (b) biological, (t) water temperature, (s) sediment)

DELAWARE RIVER BASIN

Page

Delaware Bay at Ship John Shoal Lighthouse (ct) 21
Delaware River above Lackawaxen River near Barryville, NY (dt) 25
LACKAWAXEN RIVER BASIN
West Branch Lackawaxen River at Prompton (d) 28
Dyberry Creek near Honesdale (d) 29
Lackawaxen River at Hawley (d) 30
Wallenpaupack Creek at Wilsonville (d) 31
LAKES AND RESERVOIRS IN LACKAWAXEN RIVER BASIN 32
Delaware River at Port Jervis, NY (dt) 33
Delaware River at Montague, NJ (d) 36
BUSH KILL BASIN
Bush Kill at Shoemakers (dc) 37
Delaware River near East Stroudsburg (c) 39
Delaware River below Tocks Island Damsite, near Delaware Water Gap (d) 41
BRODHEAD CREEK BASIN
Brodhead Creek near Analomink (d) 42
Brodhead Creek at Minisink Hills (dc) 43
Delaware River at Belvidere, NJ (d) 45
Delaware River near Martins Creek (c) 46
MARTINS CREEK BASIN
Martins Creek near East Bangor (d) 48
Delaware River at Easton (dct) 49
BUSHKILL CREEK BASIN
Bushkill Creek at Easton (c) 57
LEHIGH RIVER BASIN
Lehigh River at Stoddartsville (dc) 58
Tobyhanna Creek:
Tunkhannock Creek near Long Pond (d) 60
Tobyhanna Creek near Blakeslee (dc) 61
Lehigh River below Francis E. Walter Lake near White Haven (d) 63
Mud Creek:
Dilldown Creek near Long Pond (d) 64
Pohopoco Creek at Kresgeville (dt) 65
Wild Creek at Hatchery (d) 68
Pohopoco Creek below Beltzville Dam near Parryville (dt) 69
Aquashicola Creek at Palmerton (dc) 72
Lehigh River at Walnutport (dc) 75
Little Lehigh Creek near Allentown (dc) 77
Jordan Creek near Schnecksville (d) 79
Jordan Creek at Allentown (dc) 80
Lehigh River at Bethlehem (c) 82
Monocacy Creek at Bethlehem (d) 84
Lehigh River at Bethlehem (d) 85
Saucon Creek near Hellertown (c) 86
Saucon Creek at Bethlehem (c) 87
Lehigh River at Glendon (d) 89
Lehigh River at Easton (ct) 90
LAKE AND RESERVOIRS IN LEHIGH RIVER BASIN 98
TOHICKON CREEK BASIN
Tohickon Creek near Pipersville (dc) 100
Delaware River at Trenton, NJ (dcts) 102
Delaware River at Bristol, PA-Burlington, NJ Bridge (c) 120
NESHAMINY CREEK BASIN
Neshaminy Creek near Doylestown (c) 121
Little Neshaminy Creek at Jacksonville (c) 122
Neshaminy Creek near Langhorne (dc) 124
POQUESSING CREEK BASIN
Poquessing Creek at Trevose Road, Philadelphia (d) 126
Byberry Creek:
Walton Run at Philadelphia (d) 127
Byberry Creek at Chalfont Road, Philadelphia (d) 128
Poquessing Creek at Grant Avenue, Philadelphia (d) 129
Delaware River at Torresdale Intake at Philadelphia (ct) 130
PENNYPACK CREEK BASIN
Pennypack Creek at Welsh Road near Abington (c) 137
Pennypack Creek at Pine Road, Philadelphia (d) 138
Stream 'A' at Philadelphia, (d) 139
Pennypack Creek at Lower Rhawn Street Bridge, Philadelphia (d) 140
Wooden Bridge Run at Grant Avenue, Philadelphia (d) 141
Wooden Bridge Run at Philadelphia (d) 142
Pennypack Creek at Frankford Avenue, Philadelphia (c) 143

GAGING STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED

DELAWARE RIVER BASIN--Continued

- FRANKFORD CREEK BASIN
  - Tacony Creek near Jenkintown (d) 144
    - Rock Creek above Curtis Arboretum near Philadelphia (d) 145
    - Jenkintown Creek at Elkins Park (d) 146
  - Tacony Creek at County Line, Philadelphia (d) 147
- Frankford Creek at Torresdale Avenue, Philadelphia (d) 148
- Delaware River at Lehigh Avenue, Philadelphia (c) 149
- Delaware River at Benjamin Franklin Bridge at Philadelphia (ct) 150
- Delaware River at Wharton Street, Philadelphia (c) 157
- Delaware River at League Island, Philadelphia (c) 158
- SCHUYLKILL RIVER BASIN
  - Schuylkill River at Port Carbon (s) 159
  - Schuylkill River at Pottsville (c) 162
    - West Branch Schuylkill River at Cressona (c) 164
  - Schuylkill River at Landingville (d) 165
    - Little Schuylkill River at Tamaqua (d) 166
    - Little Schuylkill River near Tamaqua (c) 167
  - Schuylkill River at Berne (dcts) 169
    - Maiden Creek:
      - Maiden Creek Tributary at Lenhartsville (d) 178
      - Sacony Creek above Bowers (d) 179
    - Maiden Creek at Virginville (d) 180
    - Maiden Creek near Leesport (c) 181
    - Tulpehocken Creek near Bernville (d) 182
    - Tulpehocken Creek at Bernville (c) 183
      - Northkill Creek at Bernville (c) 185
    - Tulpehocken Creek at Blue Marsh Damsite near Reading (dct) 187
    - Tulpehocken Creek near Reading (dc) 192
  - Schuylkill River at Reading (dc) 195
    - Manatawny Creek near Pottstown (d) 198
  - Schuylkill River at Pottstown (dc) 199
    - French Creek near Phoenixville (dc) 202
    - Pickering Creek near Chester Springs (d) 205
      - Pigeon Run at Rapps Corner (d) 206
    - Perkiomen Creek at Graterford (dc) 207
      - Skippack Creek near Collegeville (d) 209
  - Schuylkill River at Manayunk (s) 210
    - Wissahickon Creek:
      - Sandy Run:
        - Pine Run:
          - Pine Run Tributary near Ambler (d) 214
    - Wissahickon Creek at Ambler (c) 215
    - Wissahickon Creek at Bells Mill Road, Philadelphia (d) 217
    - Wissahickon Creek at mouth, Philadelphia (dc) 218
  - Schuylkill River at Philadelphia (dcbt) 220
  - RESERVOIRS IN SCHUYLKILL RIVER BASIN 232
  - DARBY CREEK BASIN
  - Darby Creek at Waterloo Mills near Devon (d) 233
  - Darby Creek near Darby (d) 234
    - Cobbs Creek at U.S. Highway No. 1 at Philadelphia (d) 235
      - Naylor Creek at West Chester Pike near Philadelphia (d) 236
    - Cobbs Creek at Darby (d) 237
    - Crum Creek:
      - Little Crum Creek at Michigan Avenue, Swarthmore (d) 238
- Delaware River at Eddystone (c) 239
  - CHESTER CREEK BASIN
  - Chester Creek near Chester (dc) 240
- Delaware River at Chester (ct) 243
- Delaware River at Marcus Hook (c) 250
  - CHRISTINA RIVER BASIN
    - White Clay Creek:
      - Red Clay Creek at Wooddale, DE (dct) 251
      - RESERVOIR IN CHRISTINA RIVER BASIN 252
    - West Branch Brandywine Creek near Honey Brook (d) 253
    - West Branch Brandywine Creek at Coatesville (d) 254
    - West Branch Brandywine Creek at Modena (dct) 255
      - East Branch:
        - Marsh Creek near Glenmoore (d) 263
        - Marsh Creek near Downingtown (dt) 264
      - East Branch Brandywine Creek near Downingtown (dc) 267
      - East Branch Brandywine Creek below Downingtown (dct) 270
    - Brandywine Creek at Chadds Ford (dcts) 278
    - Brandywine Creek at Wilmington, DE (dcs) 290
- Delaware River at Delaware Memorial Bridge, near Wilmington, DE (ct) 295
- Delaware River at Reedy Island Jetty, DE (ct) 302

WATER RESOURCES DATA FOR PENNSYLVANIA, 1977

INTRODUCTION

Water resources data for the 1977 water year for Pennsylvania consist of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of ground water. This report contains discharge records for 82 gaging stations; stage and contents for 10 lakes and reservoirs; water quality for 34 gaging stations, 41 partial-record stations, and water levels for 16 observation wells. Also included are 42 crest-stage partial-record stations and 38 low-flow partial-record stations. Additional water data were collected at various sites, not involved in the systematic data-collection program, and are published as miscellaneous measurements. These data represent that part of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in Pennsylvania.

Since 1962, the Pennsylvania Department of Environmental Resources (DER) has collected and analyzed water-quality samples throughout the state as part of the Pennsylvania Water-Quality Network[1]. Since the 1976 water year, these water-quality data were included in the "Water Resources Data for Pennsylvania" to provide users with a more comprehensive collection of water-resources data for the state.

This report contains records of DER samples for 16 gaging stations, 12 water-quality stations, and 22 partial-record stations. All DER analyses are distinguished from USGS analyses by the value 9813 under the column heading "Code for Agency Collecting Sample".

At this time records of Pennsylvania Water-Quality Network samples collected prior to October 1975 are available only through the DER. Historical data provided by the DER will be published in the future as a separate data report. All requests and questions concerning the data should be directed to the Pennsylvania Department of Environmental Resources, Bureau of Water-Quality Management, 14th Floor, Fulton Building, P.O. Box 2063, Harrisburg, Pennsylvania 17120.

Records of discharge or stage of streams, and contents or stage of lakes and reservoirs were first published in a series of U.S. Geological Survey water-supply papers entitled "Surface Water Supply of the United States." through September 30, 1960, these water-supply papers were in an annual series and then in a 5-year series for 1961-65 and 1966-70. Records of chemical quality, water temperatures, and suspended-sediment were published from 1941 to 1970 in an annual series of water-supply papers entitled "Quality of Surface Waters of the United States." Records of ground-water levels were published from 1935 to 1974 in a series of water-supply papers entitled "Ground-Water Levels of the United States." Water-supply papers may be consulted in the libraries of the principal cities in the United States or may be purchased from Branch of Distribution, U.S. Geological Survey, 1200 South Eads Street, Arlington, Virginia 22202.

For water years 1961 through 1974, streamflow data were released by the Geological Survey in annual reports on a State-boundary basis. Water-quality records for water years 1964 through 1974 were similarly released either in separate reports or in conjunction with streamflow records. Beginning with the 1975 water year, water data for streamflow, water quality, and ground water are published as an official Survey report on a State-boundary basis. These official Survey reports carry an identification number consisting of the two letter State abbreviation, the last two digits of the water year, and the volume number. For example, this report is identified as "U.S. Geological Survey Water-Data Report PA-77-1." Water-Data reports are for sale by the National Technical Information Service, U.S. Department of Commerce, Springfield, Virginia, 22161.

COOPERATION

The U.S. Geological Survey and organizations of the Commonwealth of Pennsylvania have had cooperative agreements for the systematic collection of surface-water records during the periods 1919-21 and 1931 to date, water-quality records from 1944 to date, and ground-water records from 1925 to date. Organizations that supplied data are acknowledged in station descriptions. Organizations that assisted in collecting data through cooperative agreement with the Survey are:

State Department of Environmental Resources, M. K. Goddard, secretary, through the following: Office of Resources Management, C. H. McConnell, deputy secretary; Office of Environmental Protection and Regulation, W. B. Middendorf, deputy secretary; Bureau of Topographic and Geologic Survey, A. A. Socolow, director.

State Department of Transportation, J. B. Wilson, secretary, through the Bureau of Materials Testing and Research, L. D. Sandvig, director.

Delaware River Basin Commission, G. M. Hansler, executive director.

Chester County Water Resources Authority, D.C. Yaeck, executive director.

Delaware Valley Regional Planning Commission, W. N. Johnson, executive director.

City of Easton, H. J. Schultz, mayor.

City of Bethlehem, P. Marcincin, mayor.

1/ Commonwealth of Pennsylvania, Department of Environmental Resources, 1975, Pennsylvania Water-Quality Network - Sampling Station Descriptions; Publication No. 33, 62 p.

City of Philadelphia, Water Department, C. F. Guarino, water commissioner.

Delaware Geological Survy, R. R. Jordan, state geologist.

Assistance in the form of funds or services was given by the State Department of Environmental Resources, Bureau of Water-Quality Management in providing records for 52 water-quality stations and by the Corps of Engineers, U.S. Army, in providing records for 48 gaging stations published in this report. Assistance was also furnished by the National Weather Service, NOAA, U.S. Department of Commerce, and the U.S. Environmental Protection Agency.

The following organizations aided in collecting records:

Palmer Water Co.; Pennsylvania Power and Light Co.; Philadelphia Electric Co.; Philadelphia Surburban Water Co.; New Jersey Zinc Co.; Panther Valley Water Co.; and City of Coatesville.

HYDROLOGIC CONDITIONS

Streamflow during the 1977 water year was about average, although monthly means showed a large variance from normal due to unusual weather conditions. At the two representative gaging stations for the Delaware River basin, Bush Kill at Shoemakers, PA (01439500) and Schuylkill River at Pottstown, PA (01472000), streamflow was 107 percent and 112 percent, respectively, of the 1941-70 median.

Precipitation for the year ranged from above normal for the top half of the basin to below normal for the bottom half. Monthly values showed a wide range in precipitation, but were consistent across the basin. All index stations showed the October, March, April and September monthly values to be above normal, with most values for October being 200 percent or more of the normal. Conversely, monthly values for all index stations were below normal for November, December, January, May and July, with all values for November being 10 to 30 percent of the normal. February, June and August values varied from above normal to below normal across the basin. In addition to the fluctuation of monthly precipitation values, severe winter conditions during January and February reduced streamflow by freezeup.

Bush Kill at Shoemakers, PA was above median October, November, December, March, April and September. Streamflow for October was fifth highest and for March third highest for period of record, 1909-77. January, May, June, July and August streamflow were all in the lowest 25 percent of flow for the period of record. Streamflow for January was the fifth lowest for the period of record 1909-77. Yearly mean of 233 cubic feet per second was 99 percent of the average for the period 1909-76.

Schuylkill River at Pottstown, PA was above median October, November, March, April and August. Streamflow for October was highest for period of record 1927-77, surpassing the mean of October 1975; March streamflow was second highest for period of record. Streamflow for January and June were in the lowest 25 percent of flow for the period of record. January streamflow was the fourth lowest for the period of record 1927-77. Yearly mean of 1920 cubic feet per second was 102 percent of the average for the period 1927-76.

Yearly mean streamflow at both stations was the lowest since 1970. Monthly means are compared with monthly medians for the period 1941-70, monthly maximums and monthly minimums at the two representative gaging stations in figures 1 and 2.

Ground-water levels of the 1977 water year were generally above their monthly means during the first three months of the year, below during the next two months, and seemed to be recovering during the rest of the year.

Ground-water levels during October of 1976 through February of 1977 were below those of the previous year. Recovery seemed to be occurring during the rest of the year.

Comparison of 1977 water levels in network observation wells with a) 1976 water levels and b) monthly mean water levels for period of record is shown in figure 3.

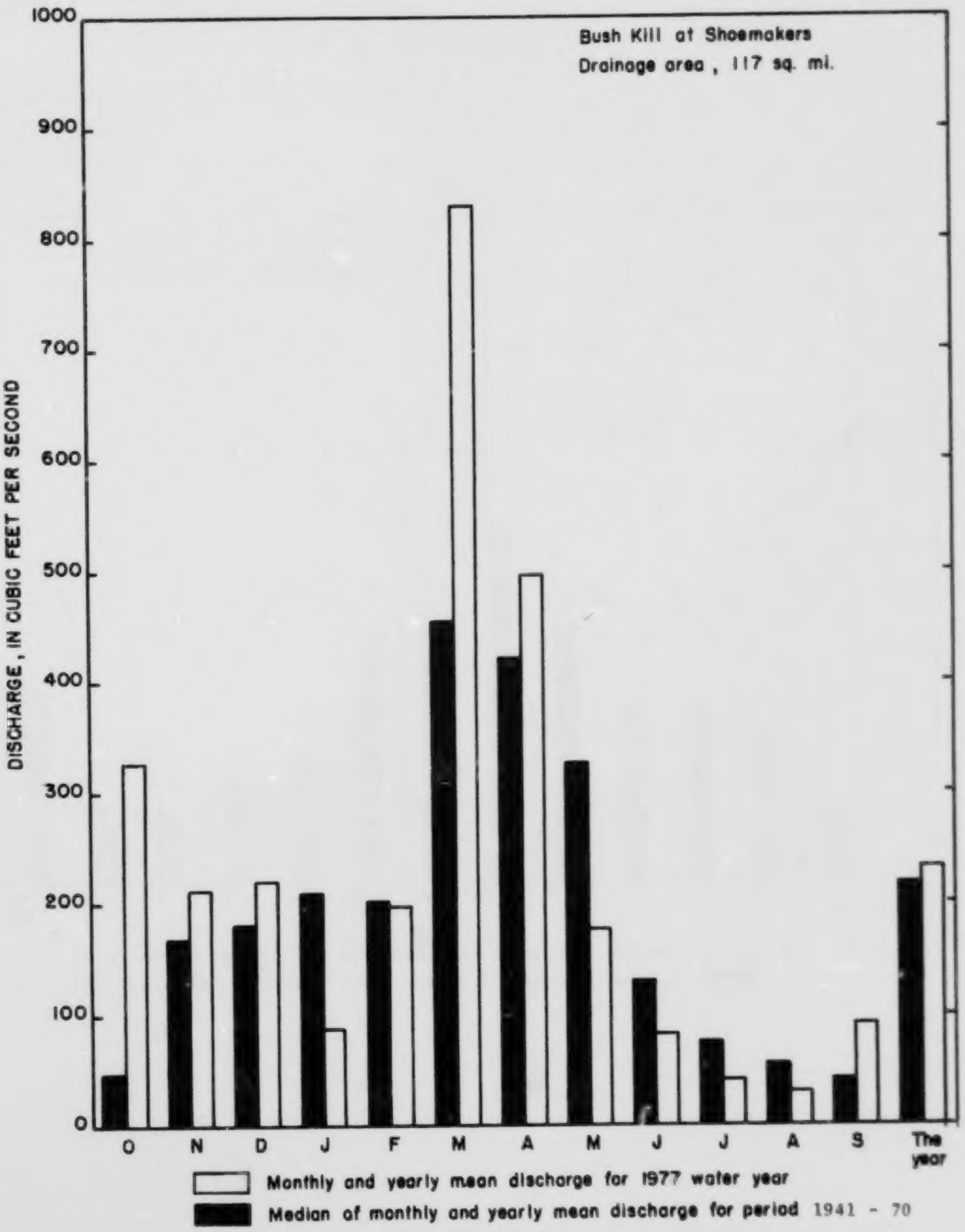

Figure 2.--Comparison of discharge at Bush Kill at Shoemakers during the 1977 water year with median discharge for period 1941-70.

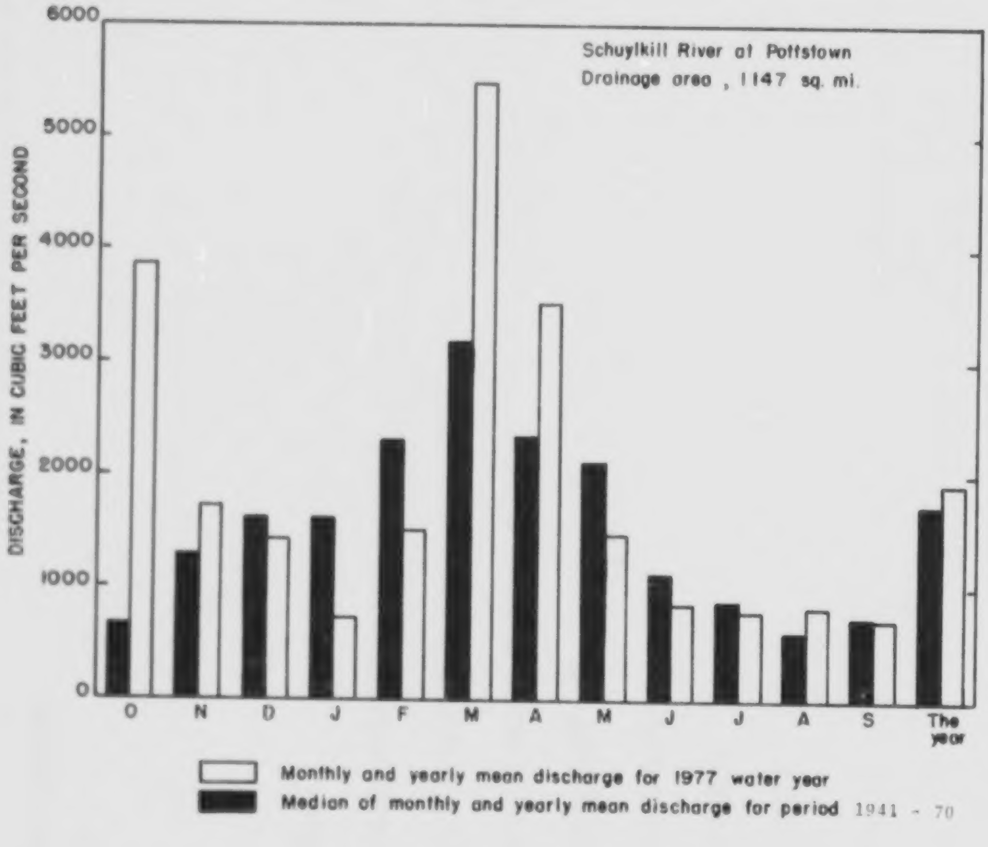

Figure 1.--Comparison of discharge at Schuylkill River at Pottstown during the 1977 water year with median discharge for period 1941-70.

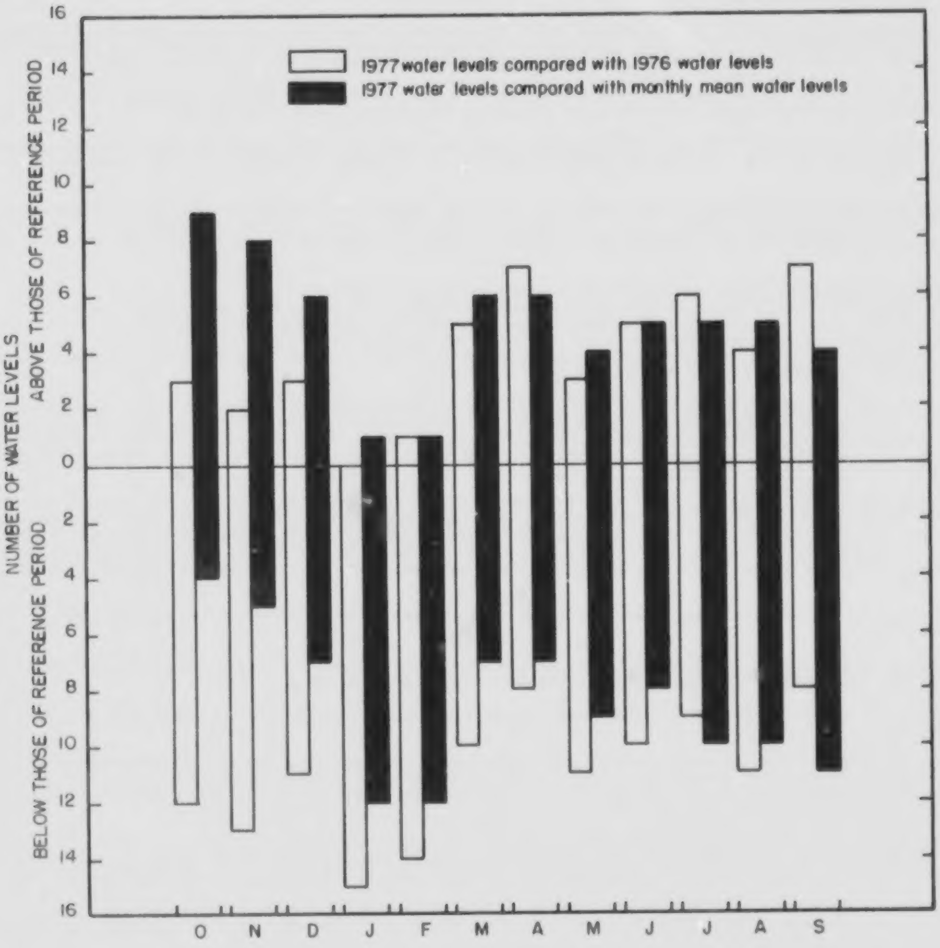

Figure 3.--Comparison of 1977 water levels in network observation wells with
a) 1976 water levels and
b) monthly mean water levels for period of record.

DEFINITION OF TERMS

Terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. See also the table for converting English units to International System of units (SI) on the inside of the back cover.

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Algae are mostly aquatic single-celled, colonial, or multi-celled plants, containing chlorophyll and lacking roots, stems, and leaves.

Algal growth potential (AGP) is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Artesian means confined and is used to describe a well in which the water level stands above the top of the aquifer, tapped by the well. A flowing artesian well is one in which the water level is above the land surface.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35°C. In the laboratory these bacteria are defined as the organisms which produce colonies within 24 hours when incubated at 35°C ± 1.0°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal coliform bacteria are bacteria that are present in the intestines or feces of warm-blooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms which produce blue colonies within 24 hours when incubated at 44.5°C ± 0.2°C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal streptococcal bacteria are bacteria found also in intestines of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C ± 1.0°C on M-enterrococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Bed material is the unconsolidated material of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, necessary for the decomposition of organic matter by microorganisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as the mass per unit area or volume of habitat.

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter (g/m^3), and periphyton and benthic organisms in grams per square meter (g/m^2).

Dry mass refers to the mass of residue present after drying in an oven at 60°C for zooplankton and 105°C for periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash, and sediment in the sample. Dry mass values are expressed in the same units as ash mass.

Organic mass or volatile mass of the living substance is the difference between the dry mass and ash mass, and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash mass and dry mass.

Wet mass is the mass of living matter plus contained water.

Bottom material: See Bed material.

Cells/volume refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually milliliters (mL) or liters (L).

Cfs-day is the volume of water represented by flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, about 646,000 gallons or 2,447 cubic meters.

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water, and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common pigments in plants.

Color unit is produced by one milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Control structure as used in this report is a structure on a stream or canal that is used to regulate the flow or stage of the stream or to prevent the intrusion of salt water.

Cubic feet per second per square mile (CFSM) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

Cubic foot per second (FT^3/S, ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to approximately 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment), that passes a given point within a given period of time.

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period.

Instantaneous discharge is the discharge at a particular instant of time.

Dissolved refers to the amount of substance present in true chemical solution. In practice, however, the term includes all forms of substance that will pass through a 0.45-micrometer membrane filter, and thus may include some very small (colloidal) suspended particles. Analyses are performed on filtered samples.

Diversity index is a numerical expression of evenness of distribution of aquatic organisms. The formula for diversity index is:

$$\bar{d} = -\sum_{i=1}^{s} \frac{n_i}{n} \log_2 \frac{n_i}{n}$$

Where n_i is the number of individuals per taxon, n is the total number of individuals, and s is the total number of taxa in the sample of the community. Diversity index values range from zero, when all the organisms in the sample are the same, to some positive number, when some or all of the organisms in the sample are different.

Drainage area of a stream at a specific location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the river above the specified point. Figures of drainage area given herein include all closed basins, or noncontribution areas, within the area unless otherwise noted.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or a body of impounded surface water together with all tributary surface streams and bodies of impounded surface water.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage", although gage height is more appropriate when used with a reading on a gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of hydrologic data are obtained.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate ($CaCO_3$).

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an 8-digit number.

Methylene blue active substance (MBAS) is a measure of apparent detergents. This determination depends on the formation of a blue color when methylene blue dye reacts with synthetic detergent compounds.

Micrograms per gram (ug/g) is a unit expressing the concentration of a chemical element as the mass (micrograms) of the element sorbed per unit mass (gram) of sediment.

Micrograms per liter (UG/L, ug/L) is a unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represent the mass of solute per unit volume (liter) of water. Concentration of suspended sediment also is expressed in mg/L, and is based on the mass of sediment per liter of water-sediment mixture.

Organism is any living entity, such as an insect, phytoplankter, or zooplankter.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meters (m^2), acres, or hectares. Periphyton benthic organisms, and macrophytes are expressed in these terms.

Organisms count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliters (mL) or liters (L). Numbers of planktonic organisms can be expressed in these terms.

Total organism count is the total number of organisms collected and enumerated in any particular sample.

Partial-record station is a particular site where limited streamflow and/or water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimeters (mm), of suspended sediment or bed material determined by either sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification used in this report agrees with recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology.

The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay..........	0.00024 - 0.004	Sedimentation.
Silt	0.004 - 0.062	Sedimentation.
Sand	0.062 - 2.0	Sedimentation or sieve.
Gravel	2.0 -64.0	Sieve.

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic material is removed and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native water analysis.

Percent composition is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population, in terms of types, numbers, mass or volume.

Pesticides are chemical compounds used to control undesirable plants and animals. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides. Insecticides and herbicides, which control insects and plants respectively, are the two categories reported.

Picocurie (PC, pCi) is one trillionth (1×10^{-12}) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7×10^{10} radioactive disintegrations per second. A picocurie yields 2.22 dpm (disintegrations per minute).

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers.

Phytoplankton is the plant part of the plankton. They are usually microscopic and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment, and are commonly known as algae.

Blue-green algae are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells/mL of sample.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algal mats or floating "moss" in lakes. Their concentrations are expressed as number of cells/mL of sample.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column, and are often large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers.

Polychlorinated biphenyls (PCBs) are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure to organochlorine insecticides.

Runoff in inches (IN, in) shows the depth to which the drainage area would be covered if all the runoff for a given time period were uniformly distributed on it.

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L).

Suspended-sediment discharge (tons/day) is the rate at which dry weight of sediment passes a section of a stream or is the quantity of sediment, as measured by dry weight or volume, that passes a section in a given time. It is computed by multiplying discharge times mg/L times 0.0027.

Suspended-sediment load is quantity of suspended sediment passing a section in a specified period.

Total sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bed-load discharge. It is the total quantity of sediment, as measured by dry weight or volume, that passes a section during a given time.

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

Solute is any substance derived from the atmosphere, vegetation, soil, or rocks that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in micromhos per centimeter at 25°C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in micromhos). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

Stage-discharge relation is the relation between gage height (stage) and volume of water per unit of time, flowing in a channel.

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff" as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Substrate is the physical surface upon which an organism lived.

Natural substrates refers to any naturally occurring emersed or submersed solid surface, such as a rock or tree, upon which an organism lived.

Artificial substrate is a device which is purposely placed in a stream or lake for colonization of organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is taken. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multi-plate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton collection.

Surface area of a lake is that area outlined on the latest U.S.G.S. topographic map as the boundary of the lake and measured by a planimeter in acres. In localities not covered by topographic maps, the areas are computed from the best maps available at the time planimetered. All areas shown are those for the stage when the planimetered map was made.

Surficial bed material is that part (0.1 to 0.2 ft) of the bed material that is sampled using U.S. Series Bed-Material Samplers.

Suspended (as used in tables of chemical analyses) refers to the amount (concentration) of the total concentration in a water-sediment mixture. The water-sediment mixture is associated with (or sorbed on) that material retained on a 0.45 micrometer filter.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchical scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, Hexagenia limbata is the following:

Kingdom	Animal
Phylum	Arthropoda
Class	Insecta
Order	Ephemeroptera
Family	Ephemeridae
Genus	Hexagenia
Species	Hexagenia limbata

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the year.

Tons per acre-foot indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration in milligrams per liter by 0.00136.

Tons per day is the quantity of substance in solution or suspension that passes a stream section during a 24-hour day.

Total load (tons) is the total quantity of any individual constituent, as measured by dry mass or volume, that is dissolved in a specific amount of water (discharge) during a given time. It is computed by multiplying the total discharge, times the mg/L of the constituent, times the factor 0.0027, times the number of days.

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

WRD is used as an abbreviation for "Water-Resources Data" in the REVISED RECORDS paragraph to refer to State annual basic-data reports published before 1975.

WSP is used as an abbreviation for "Water-Supply Paper" in references to previously published reports.

DOWNSTREAM ORDER AND STATION NUMBER

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a main-stream station are listed before that station. A station on a tributary that enters between two main-stream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary on which a station is situated with respect to the stream to which it is immediately tributary is indicated by an indention in a list of stations in the front of the report. Each indentation represents one rank. This downstream order and system of indention show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

As an added means of identification, each hydrologic station and partial-record station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete 8-digit number for each station such as 03041000, which appears just to the left of the station name, includes the 2-digit part number "03" plus the 6-digit downstream order number "041000".

NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES

The 8-digit downstream order station numbers are not assigned to wells and some miscellaneous sites where only random water-quality samples or discharge measurements are taken.

The well and miscellaneous site numbering system of the U.S. Geological Survey is based on the grid system of latitude and longitude. The system provides the geographic location of the well or miscellaneous site and a unique number for each site. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude, the next 7 digits denote the degrees, minutes, and seconds of longitude, and the last 2 digits (assigned sequentially identify the wells or other sites with a 1-second grid. See figure below.

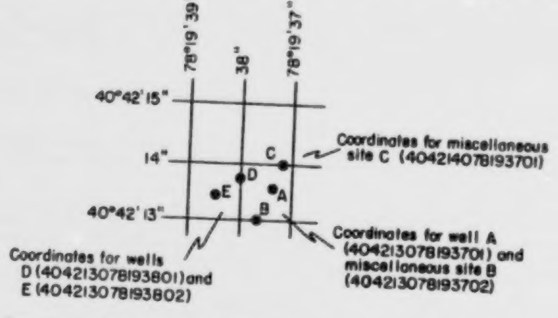
78°19'39"
38"
78°19'37"
40°42'15"
14"
40°42'13"
C
D
E
A
B
Coordinates for miscellaneous site C (404214078193701)
Coordinates for well A (404213078193701) and miscellaneous site B (404213078193702)
Coordinates for wells D (404213078193801) and E (404213078193802)

Figure 4.--System for numbering wells and miscellaneous sites (latitude and longitude).

A local well number is also assigned to the wells and consists of a 2-letter abbreviation of the county in which the well is located and a sequential number assigned at the time the well was scheduled.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic bench-mark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from manmade changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin.

National stream-quality accounting network (NASQAN) is a data-collection network designed by the U.S. Geological Survey to meet many of the information demands of agencies or groups involved in national or regional water-quality planning and management. Both accounting and broad-scale monitoring objectives have been incorporated into the network design. Areal configuration of the network is based on river-basin accounting units (identified by 8-digit hydrologic-unit numbers) designated by the Office of Water Data Coordination in consultation with the Water Resources Council. Primary objectives of the network are (1) to depict areal variability of streamflow and water-quality conditions nationwide on a year-by-year basis and (2) to detect and assess long-term changes in streamflow and stream quality.

Pesticide program is a network of regularly sampled water-quality stations where samples are collected to determine the concentration and distribution of pesticides in streams where potential contamination could result from the application of the commonly used insecticides and herbicides. Operation of the network is a Federal interagency activity.

Radiochemical program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

Tritium network is a network of stations which has been established to provide baseline information on the occurrence to tritium in the Nation's surface waters. In addition to the surface-water station in the network, tritium data are also obtained at a number of precipitation stations. The purpose of the precipitation stations is to provide an estimate sufficient for hydrologic studies of the tritium input to the United States.

EXPLANATION OF STAGE AND WATER-DISCHARGE RECORDS

Collection and computation of data

The base data collected at gaging stations consist of records of stage and measurement of discharge of streams or canals, and stage, surface area, and contents of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from either direct readings on a nonrecording gage or from a water-stage recorder that gives either a continuous graph of the fluctuations or a tape punched at selected time intervals. Measurements of discharge are made with a current meter, using the general methods adopted by the Geological Survey. These methods are described in standard textbooks, in Water Supply Paper 888, and in U.S. Geological Survey Techniques of Water Resources Investigations, book 3, chapter A6.

For stream-gaging stations, rating tables giving the discharge for any stage are prepared from stage-discharge relation curves. If extensions to the rating curves are necessary to express discharge greater than measured, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, computation of flow over dams or weirs), step-backwater techniques, velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage heights and rating tables, then the monthly and yearly mean discharge are computed from the daily figures. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is computed by the shifting-control method, in which correction factors based on individual discharge measurements and notes by hydrologists and observers are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean discharge is computed by what is basically the shifting-control method.

At some stream-gaging stations the stage-discharge relation is affected by the backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in computing discharge. The slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage; at these stations the rate of change in stage is used as a factor in computing discharge.

At some northern stream-gaging stations the stage-discharge relation is affected by ice in the winter, and it becomes impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of gage-height record and occasional winter discharge measurements. Consideration is given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge for other stations in the same or nearby basins.

For a lake or reservoir station, capacity tables giving the contents for any stage are prepared from stage-area relation curves defined by surveys. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly change in contents is computed.

If the stage-capacity curve is subject to changes because of deposition of sediment in the reservoir, periodic resurveys of the reservoir are necessary to define new stage-capacity curves. During the period between reservoir surveys the computed contents may be increasingly in error due to the gradual accumulation of sediment.

For some gaging stations there are periods when no gage-height record is obtained or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents.

This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods the daily discharges are estimated on the basis of recorded range in stage, prior and subsequent records, discharge measurements, weather records, and comparison with records for other stations in the same or nearby basins. Likewise daily contents may be estimated on the basis of operator's log, prior and subsequent records, inflow-outflow studies, and other information.

The data in this report generally comprise a description of the station and tabulations of daily and monthly figures. For gaging stations on streams or canals a table showing the daily discharge and yearly discharge is given. For gaging stations on lakes and reservoirs a monthly summary table of stage and contents or a table showing the daily contents is given. Tables of daily mean gage heights are included for some streamflow stations and for some reservoir stations. Records are published for the water year, which begins on October 1 and ends on September 30.

The description of the gaging station gives the location, drainage area, period of record, notations of revisions of previously published records, type and history of gages, general remarks, average discharge, and extremes of discharge or contents. The location of the gaging station and the drainage area are obtained from most accurate maps available. River mileage, given under "LOCATION" for some stations, is that determined and used by the Corps of Engineers or other agencies. Periods for which there are published records for the present station or for stations generally equivalent to the present one are given under "PERIOD OF RECORD".

Previously published streamflow records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records in one of the annual or compilation reports. In order to make it easier to find such revised records, a paragraph headed "REVISED RECORDS" has been added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years only one number is given; for instance, 1965 stands for the water year October 1, 1964, to September 30, 1965. If no daily, monthly, or annual figures of discharge are affected by the revision, the fact is brought out by notations after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the revised figure was first published is given. It should be noted that for all stations for which cubic feet per second per square mile and runoff in inches are published, a revision of the drainage area necessitates corresponding revision of all figures based on the drainage area. Revised figures of cubic feet per second per square mile and runoff in inches resulting from a revision of the drainage area only are usually not published in the annual series of reports.

The type of gage currently in use, the datum of the present gage above mean sea level, and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE". In references to datum of gage, the phrase "mean sea level" denotes "Sea Level Datum of 1929" as used by the Topographic Division of the Geological Survey unless otherwise qualified.

Information pertaining to the accuracy of the discharge records and to conditions which affect the natural flow of the gaging station is given under "REMARKS". For reservoir stations information on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir is given under "REMARKS".

The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE"; it is not given for stations having fewer than 5 complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance. In addition, the median of yearly mean discharges is given for stream-gaging stations having 10 or more complete years of record if the median differs from the average by more than 10 percent. Under "EXTREMES" are given first, the extremes for the period of record, second, information available outside the period of record, and last, those for the current year. Unless otherwise qualified, the maximum discharge (or contents) is the instantaneous maximum corresponding to the crest stage obtained by use of a water-stage recorder (graphic or digital), a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur on the same day as the maximum discharge (or contents), it is given separately. Similarly, the minimum is the instantaneous minimum unless otherwise qualified. For some stations peak discharges are listed with "EXTREMES FOR THE CURRENT YEAR"; if they are, all independent peaks, including the maximum for the year, above the selected base with the time of occurrence and corresponding gage heights are published in tabular format. The base discharge, which is given in the table heading, is selected so that an average of about three peaks a year will be presented. Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subject to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030, 1:30 p.m. is 1330. The minimums for these stations are published in a separate paragraph following the table of peaks.

Skeleton rating tables are published, immediately following "EXTREMES", for stream-gaging stations where they serve a useful purpose and the dates of applicability can be easily identified.

The daily table for stream-gaging stations gives the mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also may be expressed in cubic feet per second per square mile (line headed "CFSM"), or in inches (line headed "IN"), or in acre-feet (line headed "AC-FT"). Figures for cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion, if the drainage area includes large noncontributing areas, or if the average annual rainfall over the drainage basin is usually less than 20 inches. In the yearly summary below the monthly summary, the figures shown are the appropriate daily discharges for the calendar and water years.

Footnotes to the table of daily discharge are introduced by the word "NOTE". Footnotes are used to indicate periods for which the discharge is computed or estimated by special methods because of no gage-height record, backwater from various sources, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month or more or includes the maximum discharge for the year. Periods of backwater from an unusual source, of indefinite stage-discharge relation, or of any other unusual condition at the gage site are indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated. The methods used for computing discharge for various unusual conditions have been explained in preceding paragraphs.

For most gaging stations on lakes and resevoirs the data presented comprise a description of the station and a monthly summary table of stage and contents. For some reservoirs a table showing daily contents or stage is given. A skeleton table of capacity at given stages is published for all reservoirs for which records are published on a daily basis, but is not published for reservoirs for which only monthly data are given.

Data collected at partial-record stations follow the information for continuous record sites. Data for partial-record discharge stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. Occasionally, a series of discharge measurements are made within a short time period to investigate the seepage gains or losses along a reach of a stream or to determine the low-flow characteristics of an area. Such measurements are also given in special tables following the tables of partial-record stations.

Accuracy of field data and computed results

The accuracy of streamflow data depends primarily on (1) the stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements, and (2) the accuracy of observations of stage, measurements of discharge, and interpretations of records.

The station description under "REMARKS" states the degree of accuracy of the records. "Excellent" means that about 95 percent of the daily discharges are within 5 percent; "good", within 10 percent; and "fair", within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy.

Figures of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 cfs; to tenths between 1.0 and 10 cfs; to whole numbers between 10 and 1,000 cfs; and to 3 significant figures above 1,000 cfs. The number of significant figures used is based solely on the magnitude of the figure. The same rounding rules apply to discharge figures listed for partial-record stations.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. For such stations, figures of cubic feet per second per square mile and of runoff in inches are not published unless satisfactory adjustments can be made for diversions, for changes in contents of reservoirs, or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

Other data available

Information of a more detailed nature than that published for most of the gaging stations such as observations of water temperatures, discharge measurements, gage-height records, and rating tables is on file in the district office. Also most gaging-station records are available in computer-usable form and many statistical analyses have been made.

Information on the availability of unpublished data or statistical analyses may be obtained from the district office.

EXPLANATION OF WATER-QUALITY RECORDS

Collection and examination of data

Surface water samples for analyses usually are collected at or near gaging stations. The quality-of-water records are given immediately following the discharge records at these stations.

The descriptive heading for water-quality records gives the period of record for all water-quality data; the period of daily record for parameters that are measured on a daily basis (specific conductance, pH, dissolved oxygen, water temperature, sediment discharge, etc.); extremes for the period of daily record; extremes for the current year; and general remarks.

Water analysis

Most methods for collecting and analyzing water samples are described in the U.S. Geological Survey Techniques of Water-Resources Investigations listed on a following page.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the district office.

Water temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at time of discharge measurements for water-discharge stations. For stations where water temperatures are taken manually once or twice daily, the water temperatures are taken at about the same time each day. Large streams have a small diel temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

At stations where recording instruments are used, either mean temperatures or maximum and minimum temperatures for each day are published.

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross section.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided-day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided-day method. For periods when no samples were collected, daily loads of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow in predicting long-term sediment-discharge characteristics of the stream.

In addition to the records of the quantities of suspended sediment, records of the periodic measurements of the particle-size distribution of the suspended-sediment and bed material are included.

EXPLANATION OF GROUND-WATER LEVEL RECORDS

Collection of the data

Only ground-water level data from a basic network of observation wells are published herein. This basic network contains observation wells so located that the most significant data are obtained from the fewest wells in the most important aquifers.

Each well is identified by means of (1) a 15-digit number that is based on latitude and longitude and (2) a local number that is provided for local needs. See figure .

Measurements are made in many types of wells, under varying conditions of access and at different temperatures, hence neither the method of measurement nor the equipment can be standardized. At each observation well, however, the equipment and techniques used are those that will ensure that measurements at each well are consistent.

Water-level measurements in this report are given in feet with reference to land-surface datum (lsd). Land-surface datum is a datum plane that is approximately at land surface at each well. The altitude of the land-surface datum above mean sea level is given in the well description. Mean sea level is the datum plane on which the national network of precise levels is based. The height of the measuring point (MP) above or below land-surface datum is given in each well description. Water levels in wells equipped with recording gages are reported for every fifth day and the end of each month (eom).

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

Thirty-four manuals by the U.S. Geological Survey have been published to date in the series on techniques describing procedures for planning and executing specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) is on surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises. The reports listed below are for sale by the U.S. Geological Survey, Branch of Distribution, 1200 South Eads Street, Arlington, VA 22202 (authorized agent of the Superintendent of Documents, Government Printing Office). Prices are subject to change.

NOTE: When ordering any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations".

1-D1. *Water temperature-influential factors, field measurement, and data presentation*, by H.H. Stevens Jr., J. F. Ficke, and G.F. Smoot: USGS--TWRI Book 1, Chapter D1, 1976. 65 pages. $1.60

1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W.W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages. $0.85.

2-D1. *Application of surface geophysics to ground-water investigations*, by A.A.R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages. $1.90

2-E1. *Application of borehole geophysics to water-resources investigations*, by W. S. Keys and L. M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages. $1.75.

3-A1. *General field and office procedures for indirect discharge measurements*, by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages. $1.00.

3-A2. *Measurement of peak discharge by the slope-area method*, by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages. $0.20.

3-A3. *Measurement of peak discharge at culverts by indirect methods*, by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages. $0.40.

3-A4. *Measurement of peak discharge at width contractions by indirect methods*, by H. F. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 pages. $0.35.

3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages. $0.30.

3-A6. *General procedure for Gaging Streams*, by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6, 1968. 13 pages. $0.20

3-A7. *Stage measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS-TWRI Book 3, Chapter A7. 1968. 28 pages. $0.45.

3-A8. *Discharge measurements at gaging stations*, by T. J. Buchanan and W.P. Somers: USGS-TWRI Book 3, Chapter A8. 1969. 65 pages. $1.25.

3-A11. *Measurement of discharge by moving-boat method*, by G. F. Smoot and C. E. Novak: USGS-TWRI Book 3, Chapter A11. 1969. 22 pages. $0.40.

3-A12. *Fluorometric procedures for dye tracing*, by J. F. Wilson, Jr.: USGS--TWRI Book 3, Chapter A12. 1968. 31 pages. $0.35. Not currently available.

3-B1. *Aquifer-test design, observation, and data analysis*, by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages. $0.70.

3-B2. *Introduction to ground-water hydraulics, a programed text for self-instruction*, by G. D. Bennett: USGS--TWRI Book 3, Chapter B2. 1976. 172 pages. $2.50.

3-C1. *Fluvial sediment concepts*, by H. P. Guy: USGS-TWRI Book 3, Chapter C1. 1970. 55 pages. $0.65.

3-C2. *Field methods for measurement of fluvial sediment*, by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages. $2.50.

3-C3. *Computation of fluvial-sediment discharge*, by George Porterfield: USGS--TWRI Book 3, Chapter C3, 1972, 66 pages. $1.15.

4-A1. *Some statistical tools in hydrology*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages. $0.30.

4-A2. *Frequency curves*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages. $0.20.

4-B1. *Low-flow investigations*, by H. C. Riggs: USGS--TWRI Book 4. Chapter B1, 1972. 18 pages. $0.65.

4-B2. *Storage analyses for water supply*, by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages. $0.75.

4-B3. *Regional analyses of streamflow characteristics*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages. $0.65.

4-D1. *Computation of rate and volume of stream depletion by wells*, by C. T. Jenkins: USGS--TWRI Book 4. Chapter D1. 1970. 17 pages. $0.65.

5-A1. *Methods for collection and analysis of water samples for dissolved minerals and gases*, by Eugene Brown, M. W. Skougstad, and M. J. Fishman: USGS--TWRI Book 5, Chapter A1. 1970. 160 pages. $2.40.

5-A2. *Determination of minor elements in water by emission spectroscopy*, by P. E. Barnett and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages. $0.80.

5-A3. *Methods for analysis or organic substances in water*, by D. F. Goerlitz and Eugene Brown: USGS--TWRI Book 5, Chapter A3. 1972. 40 pages. $0.90.

5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples*, by K. V. Slack, R. C. Averett, P. E. Greeson, and R. G. Lipscomb: USGS--TWRI Book 5, Chapter A4. 1973. 165 pages. $2.85.

5-A5.* *Methods for determination of radioactive substances in water and fluvial sediments*, by L. L. Thatcher, V. J. Janzer, and K. W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 pages. $16.00.

5-C1. *Laboratory Theory and Methods for Sediment Analysis*, by H. P. Guy: USGS--TWRI Book 5, Chapter C1, 1969. 58 pages. $0.65.

7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments*, by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1, 1976. 116 pages. $2.30.

8-A1. *Methods of measuring water levels in deep wells*, by M. S. Garber and F. C. Koopman: USGS-TWRI Book 8, Chapter A1. 1968. 23 pages. $0.70.

8-B2. *Calibration and maintenance of vertical-axis type current meters*, by G. F. Smoot and C. F. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages. $0.40.

* Looseleaf format. Available only by subscription. Additional supplements will be issued to subscribers at no extra cost.

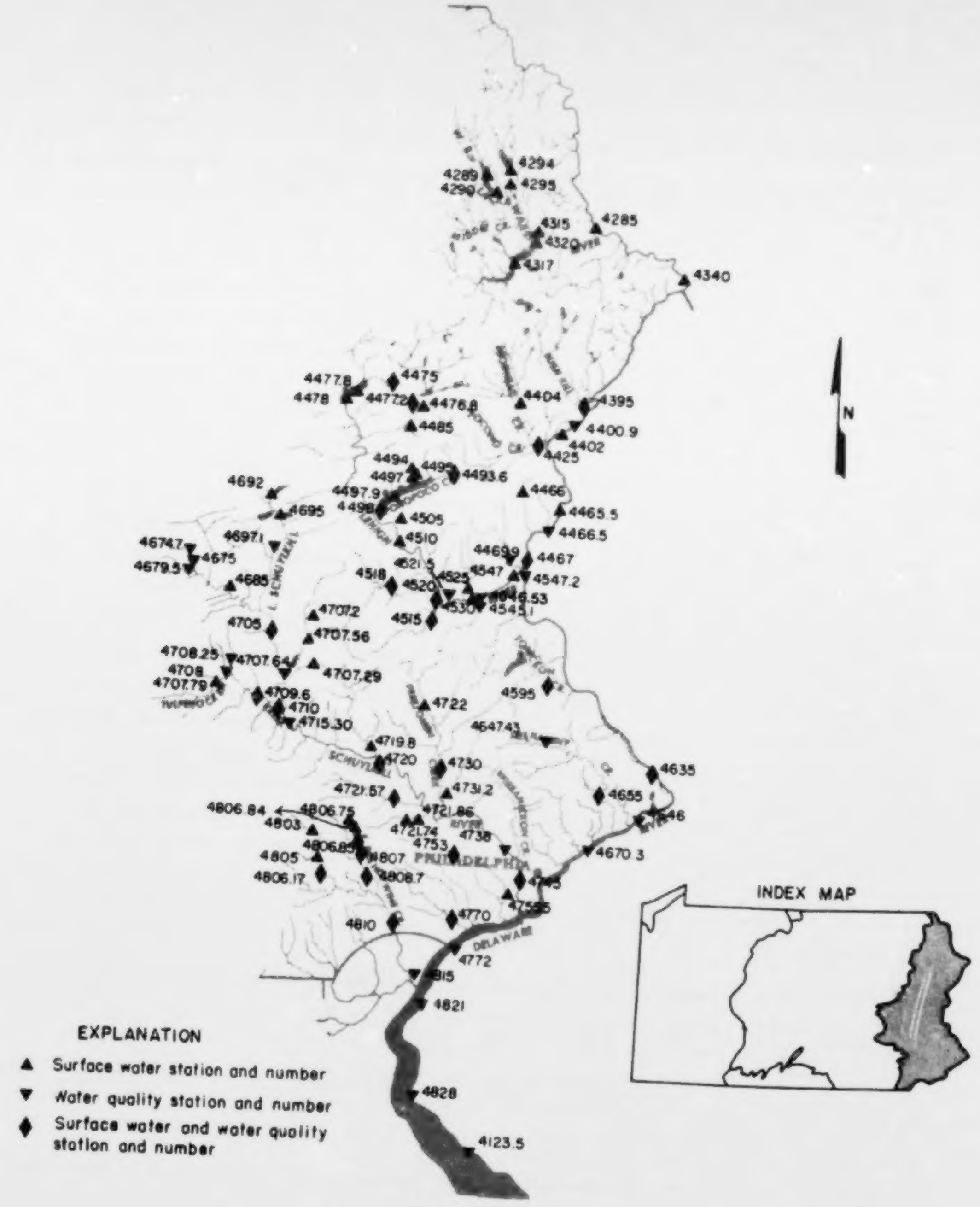

FIGURE 5 — Locations of data collection stations

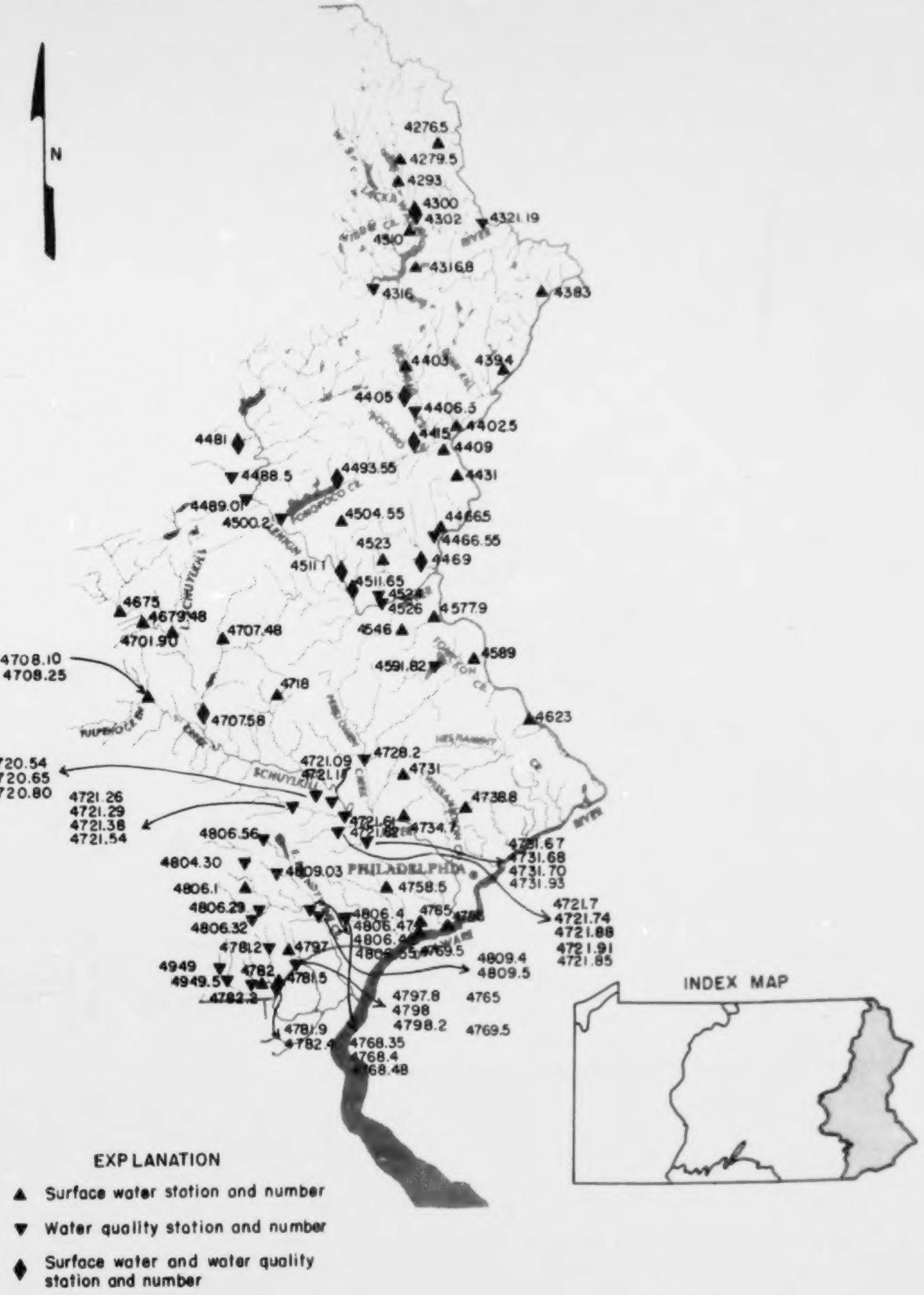

FIGURE 6 —Locations of partial-record data collection stations

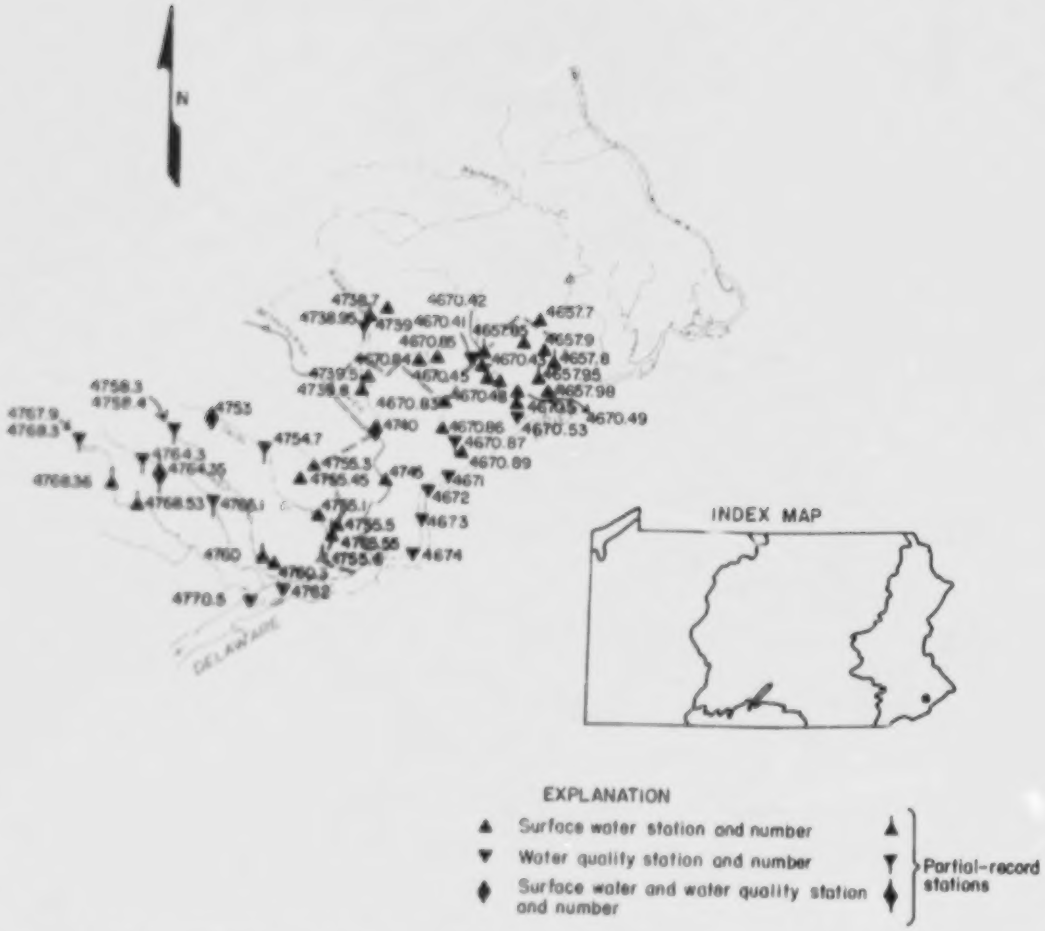

FIGURE 7 — Locations of Philadelphia data collection stations

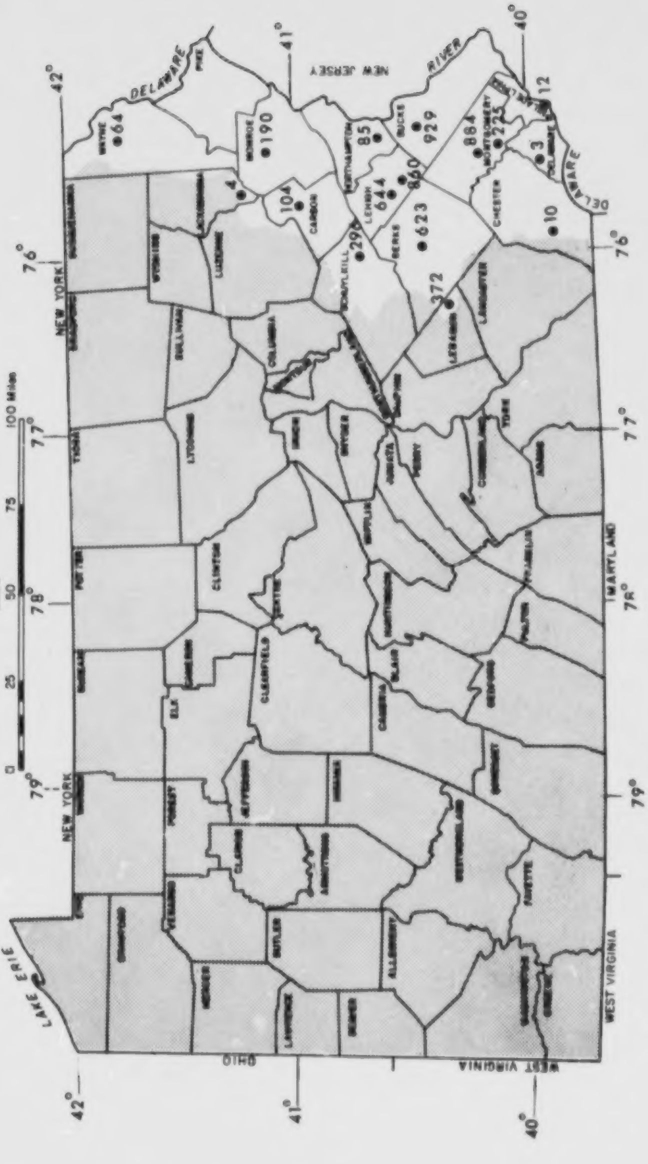

Figure 8.--Locations of ground-water level wells

Preceding page blank

01412350 DELAWARE BAY AT SHIP JOHN SHOAL LIGHTHOUSE, NJ

LOCATION.--Lat 39°18'19", long 75°22'37", Cumberland County, Hydrologic Unit 02040204, water-quality recorder on lightship in bay opposite Bombay Hook Island, DE, and 3 mi (4.8 km) south southwest of mouth of Cohansey River, NJ.

PERIOD OF RECORD.--April 1969 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: April 1969 to current year.
WATER TEMPERATURES: February 1970 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 52,800 micromhos Feb. 10, 1970; minimum, 1,500 micromhos Mar. 4, 1971.
WATER TEMPERATURES: Maximum, 30.0°C Aug. 1, 1970; minimum, freezing point on many days during January and February 1976.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	30600	24500	27800	18100	11700	15500	22400	14600	18800	19100	14100	17000
2	31100	26500	28700	19700	11700	16200	21900	16000	18500	22600	15200	19000
3	29800	22200	27700	19200	13100	16300	22000	14200	18200	24600	17700	21400
4	30600	25100	27900	20400	12500	17200	21400	14600	18200	25400	20400	22900
5	30000	26400	28600	20000	13700	16900	20500	14300	18400	26200	20700	23800
6	29600	24500	28000	15900	11600	14300	22600	15100	19300	26400	21400	24300
7	28700	23300	26900	16400	9360	13400	23800	18000	20600	26700	20900	24100
8	28700	23100	26600	18000	11600	14500	21900	16100	19200	25600	18700	22200
9	30600	23300	26800	19000	11500	15800	19100	11800	16500	26400	20900	24000
10	25900	16200	21800	17600	11100	14600	19200	12600	16600	27600	22400	25300
11	24200	15600	21100	17500	11500	14900	17600	11600	15600	22700	15100	20200
12	24900	15000	21100	19200	13000	15800	19300	11800	16500	19300	9850	16700
13	24600	14100	20400	18500	11000	15000	19000	12300	15200	11300	9850	10500
14	22600	11900	17800	19300	12000	15600	18900	10800	15100	11000	9220	10300
15	23000	12000	16900	20900	13700	17200	18100	11800	15500	13200	9530	11200
16	20900	11400	16900	22100	16000	18900	20300	13100	17300	12600	11700	12200
17	23800	15900	19300	22600	16700	20200	20900	14100	18600	12000	10100	11100
18	23100	16900	20700	22700	17400	20400	20800	15300	18100	11200	10000	10600
19	26000	18100	22800	23600	16900	20800	21500	13200	17800	11000	9880	10400
20	27200	21600	23900	23800	16400	20200	22000	14400	18400	10500	9390	10000
21	24000	17800	21500	23300	16100	19500	19300	12700	16200	10300	9460	9910
22	21900	14100	18400	22100	15000	17800	19300	10400	15000	10600	9630	10000
23	22400	13500	17500	21000	14000	16500	20400	12100	16800	10500	9120	9850
24	22100	12900	17100	21300	12500	16600	22000	13100	17300	10100	9060	9570
25	22200	13600	18000	22600	14000	17700	20500	14000	17800	10900	9390	9890
26	23000	13700	18300	21900	14200	18000	20400	14400	18000	12600	10100	11300
27	24300	13400	18700	21600	14300	18000	21400	14700	18100	13500	11900	12600
28	21600	12400	17600	21200	14000	18100	21900	14700	19100	13500	4080	11000
29	20400	11800	16200	21300	16000	18400	23800	18100	20500	5630	3790	5280
30	21500	10200	16600	20900	14500	17600	21600	15700	18600	7240	5210	5840
31	21900	13100	17500	---	---	---	19900	13200	17700	6700	5610	6110
MONTH	31100	10200	21600	23800	9360	17100	23800	10400	17700	27600	3790	14500

01412350 DELAWARE BAY AT SHIP JOHN SHOAL LIGHTHOUSE, NJ--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	6320	5630	6000	18900	14600	16800	22000	12700	19200			
2	8800	5890	6930	20500	11900	15800	21900	13600	18700			
3	7640	5640	6580	14400	13900	---	20300	11700	16400			
4	8960	5760	7200	---	---	---	19100	11800	15800			
5	7990	1140	5480	---	---	---	18700	11900	15700			
6	5850	2690	5190	---	---	---	---	---	---			
7	5830	4860	5350	---	---	---	---	---	---			
8	6040	1420	4790	---	---	---	---	---	---			
9	5000	1690	3590	---	---	---	---	---	---			
10	4790	2700	3690	---	---	---	---	---	---			
11	4440	2690	3710	---	---	---	---	---	---			
12	20300	4210	10400	---	---	---	---	---	---			
13	20500	18400	19600	---	---	---	---	---	---			
14	20500	17900	19300	---	---	---	---	---	---			
15	20500	17600	19000	---	---	---	---	---	---			
16	21400	18200	19500	---	---	---	---	---	---			
17	21500	13600	19400	---	---	---	---	---	---			
18	22400	16600	19400	---	---	---	---	---	---			
19	19900	14600	17500	---	---	---	---	---	---			
20	21900	14500	19200	---	---	---	---	---	---			
21	18900	16100	17700	---	---	---	---	---	---			
22	19600	11800	16100	---	---	---	---	---	---			
23	14000	6020	9570	---	---	---	---	---	---			
24	21900	11600	16700	---	---	---	---	---	---			
25	22600	9360	17200	---	---	---	---	---	---			
26	20000	12900	17200	---	---	---	---	---	---			
27	17300	12100	14800	---	---	---	---	---	---			
28	19100	12100	16100	20100	13500	16600	---	---	---			
29	---	---	---	23300	14300	19800	---	---	---			
30	---	---	---	22100	14600	18800	---	---	---			
31	---	---	---	22100	15800	19400	---	---	---			
MONTH	22600	1140	12400	23300	11900	17800	22000	11700	17200			

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	27600	20900	24100	---	---	---	28700	24000	26400
2	---	---	---	27600	21300	24500	---	---	---	27400	21800	25300
3	---	---	---	28900	22000	25400	---	---	---	26900	21000	24700
4	---	---	---	---	---	---	---	---	---	28500	22000	25500
5	---	---	---	---	---	---	---	---	---	28700	21600	25800
6	---	---	---	---	---	---	---	---	---	28300	22500	25400
7	---	---	---	26700	21600	24900	---	---	---	---	---	---
8	---	---	---	26000	19500	23400	28300	22000	25700	---	---	---
9	---	---	---	23800	18400	21800	29000	21600	25700	---	---	---
10	---	---	---	23900	18600	21500	29000	22100	26200	---	---	---
11	---	---	---	25200	20000	22100	29000	22000	26700	---	---	---
12	---	---	---	25700	19700	27300	29400	24900	27100	---	---	---
13	---	---	---	23800	19800	22400	29600	24900	27500	---	---	---
14	---	---	---	25400	19600	22300	28900	25200	27400	---	---	---
15	---	---	---	25700	19700	22800	28300	25100	27000	---	---	---
16	---	---	---	24900	19500	22600	---	---	---	---	---	---
17	---	---	---	24000	18800	21500	---	---	---	---	---	---
18	---	---	---	23900	18600	21300	---	---	---	---	---	---
19	---	---	---	24200	19100	21600	---	---	---	---	---	---
20	---	---	---	24500	19200	21700	---	---	---	---	---	---
21	25400	20600	23900	24000	19400	21900	---	---	---	---	---	---
22	26200	21000	24300	25700	21000	23000	---	---	---	---	---	---
23	26900	22500	24700	29200	22700	25800	26000	15500	19300	---	---	---
24	27200	21800	25100	28700	21900	25500	28300	15600	23400	---	---	---
25	26000	22200	24600	27100	20900	23800	30900	22400	26800	---	---	---
26	27200	22600	25100	27600	23100	25300	30900	21900	27400	---	---	---
27	28300	21900	25500	---	---	---	29800	24600	27000	25900	22200	24600
28	27900	23100	25300	---	---	---	29000	23600	26300	26500	21400	24100
29	27600	21500	24500	---	---	---	28300	22800	25800	26400	18900	23500
30	28100	21800	24600	---	---	---	28700	23200	25800	27200	19100	23500
31	---	---	---	---	---	---	29000	23300	26300	---	---	---
MONTH	28300	20600	24800	29200	18400	23100	30900	15500	26000	28700	18900	24900

01412350 DELAWARE BAY AT SHIP JOHN SHOAL LIGHTHOUSE, NJ--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	20.0	19.5	20.0	11.0	10.0	11.0	5.0	4.5	5.0	0.0	0.0	0.0
2	19.5	19.5	19.5	10.5	10.0	10.0	4.5	4.0	4.5	0.0	0.0	0.0
3	19.5	19.0	19.0	10.5	10.0	10.0	4.0	3.0	3.5	0.0	0.0	0.0
4	19.5	18.5	19.0	11.0	10.0	10.5	3.5	2.5	3.0	0.0	0.0	0.0
5	19.0	18.5	19.0	10.5	10.0	10.0	3.0	3.0	3.0	0.0	0.0	0.0
6	19.0	18.5	18.5	10.0	9.5	9.5	3.5	2.5	3.0	0.0	0.0	0.0
7	19.0	18.5	19.0	9.5	9.5	9.5	3.5	3.0	3.5	0.0	0.0	0.0
8	19.5	19.0	19.0	9.5	8.5	9.0	3.5	2.5	3.0	0.0	0.0	0.0
9	19.5	19.0	19.5	8.5	8.0	8.0	2.5	2.0	2.5	0.0	0.0	0.0
10	19.0	18.0	18.5	8.0	8.0	8.0	2.5	2.0	2.5	0.0	0.0	0.0
11	18.5	17.5	18.0	8.0	7.5	8.0	2.5	2.5	2.5	0.0	0.0	0.0
12	18.0	17.0	17.5	8.0	7.5	7.5	3.0	2.5	2.5	0.0	0.0	0.0
13	17.5	17.0	17.5	7.5	7.0	7.5	3.0	2.0	2.5	0.0	0.0	0.0
14	17.5	16.5	17.0	7.5	6.5	7.5	2.5	1.0	2.0	0.0	0.0	0.0
15	17.0	16.0	16.5	7.0	6.5	7.0	2.5	2.0	2.5	0.0	0.0	0.0
16	17.0	16.0	16.5	7.5	6.5	7.0	2.5	2.0	2.5	0.0	0.0	0.0
17	16.5	15.0	15.5	7.5	7.0	7.5	2.5	2.0	2.5	0.0	0.0	0.0
18	15.5	14.5	15.0	7.5	7.0	7.5	2.5	2.0	2.5	0.0	0.0	0.0
19	15.0	14.5	15.0	7.5	7.0	7.5	2.5	2.0	2.5	0.0	0.0	0.0
20	15.0	14.5	15.0	7.5	7.0	7.5	2.5	2.5	2.5	0.0	0.0	0.0
21	15.0	14.0	14.5	7.5	7.0	7.0	2.5	2.0	2.5	0.0	0.0	0.0
22	14.0	13.5	14.0	7.0	6.5	6.5	2.0	1.0	1.5	0.0	0.0	0.0
23	13.5	13.0	13.5	6.5	6.0	6.0	1.5	1.0	1.5	0.0	0.0	0.0
24	13.0	13.0	13.0	6.0	5.0	5.5	1.5	0.5	1.0	0.0	0.0	0.0
25	13.0	13.0	13.0	5.5	5.0	5.5	1.0	0.5	1.0	0.0	0.0	0.0
26	13.0	12.0	12.5	6.0	5.0	5.5	1.0	0.5	1.0	0.0	0.0	0.0
27	12.5	11.5	12.0	6.0	6.0	6.0	1.0	0.5	1.0	0.0	0.0	0.0
28	11.5	11.0	11.5	6.0	6.0	6.0	1.0	0.5	1.0	0.0	0.0	0.0
29	11.5	10.5	11.0	6.0	5.5	6.0	1.5	1.0	1.0	0.0	0.0	0.0
30	11.0	10.5	11.0	5.5	4.5	5.0	1.0	0.0	0.5	0.0	0.0	0.0
31	11.5	11.0	11.0	---	---	---	0.5	0.0	0.0	0.0	0.0	0.0
MONTH	20.0	10.5	16.0	11.0	4.5	7.5	5.0	0.0	2.5	0.0	0.0	0.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	0.0	0.0	0.0	---	---	---	10.0	8.5	9.0			
2	0.0	0.0	0.0	---	---	---	9.5	9.0	9.0			
3	0.0	0.0	0.0	---	---	---	10.5	9.0	10.0			
4	0.0	0.0	0.0	---	---	---	10.0	9.5	10.0			
5	0.0	0.0	0.0	---	---	---	10.0	9.5	10.0			
6	0.0	0.0	0.0	---	---	---	10.0	9.5	10.0			
7	0.0	0.0	0.0	---	---	---	10.0	9.5	9.5			
8	0.0	0.0	0.0	---	---	---	9.5	9.0	9.5			
9	0.0	0.0	0.0	---	---	---	9.5	8.5	9.0			
10	---	---	---	---	---	---	10.0	8.5	9.5			
11	---	---	---	---	---	---	10.5	9.5	10.0			
12	---	---	---	---	---	---	11.0	9.5	10.0			
13	---	---	---	---	---	---	---	---	---			
14	---	---	---	---	---	---	---	---	---			
15	---	---	---	---	---	---	---	---	---			
16	---	---	---	---	---	---	---	---	---			
17	---	---	---	---	---	---	---	---	---			
18	---	---	---	---	---	---	---	---	---			
19	---	---	---	---	---	---	---	---	---			
20	---	---	---	---	---	---	---	---	---			
21	---	---	---	---	---	---	---	---	---			
22	---	---	---	---	---	---	---	---	---			
23	---	---	---	---	---	---	---	---	---			
24	---	---	---	---	---	---	---	---	---			
25	---	---	---	---	---	---	---	---	---			
26	---	---	---	---	---	---	---	---	---			
27	---	---	---	---	---	---	---	---	---			
28	---	---	---	8.0	7.0	7.5	---	---	---			
29	---	---	---	9.0	7.0	7.5	---	---	---			
30	---	---	---	9.5	7.5	8.5	---	---	---			
31	---	---	---	9.5	8.0	8.5	---	---	---			
MONTH	0.0	0.0	0.0	9.5	7.0	8.0	11.0	8.5	9.5			

01412350 DELAWARE BAY AT SHIP JOHN SHOAL LIGHTHOUSE, NJ--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	25.5	24.5	25.0	---	---	---	26.0	25.5	26.0
2	---	---	---	25.5	25.0	25.5	---	---	---	26.5	26.0	26.0
3	---	---	---	26.0	25.0	25.5	---	---	---	26.5	26.0	26.5
4	---	---	---	---	---	---	---	---	---	27.0	26.0	26.5
5	---	---	---	---	---	---	---	---	---	26.5	23.0	26.5
6	---	---	---	---	---	---	---	---	---	26.5	21.5	26.0
7	---	---	---	26.5	26.0	26.0	---	---	---	---	---	---
8	---	---	---	27.0	26.0	26.5	28.0	27.0	27.5	---	---	---
9	---	---	---	27.0	26.5	26.5	28.5	26.5	27.5	---	---	---
10	---	---	---	27.5	26.5	26.5	28.0	27.0	27.5	---	---	---
11	---	---	---	26.5	26.5	26.5	29.0	27.0	27.5	---	---	---
12	---	---	---	26.5	26.0	26.5	28.0	27.0	27.5	---	---	---
13	---	---	---	28.5	26.5	26.5	27.5	27.0	27.5	---	---	---
14	---	---	---	28.0	26.5	27.0	27.5	27.0	27.0	---	---	---
15	---	---	---	28.5	26.5	27.5	27.5	27.0	27.0	---	---	---
16	---	---	---	28.5	27.0	27.5	---	---	---	---	---	---
17	---	---	---	28.5	27.0	28.0	---	---	---	---	---	---
18	---	---	---	28.5	28.0	28.0	---	---	---	---	---	---
19	---	---	---	29.0	28.0	28.5	---	---	---	---	---	---
20	---	---	---	29.0	28.5	28.5	---	---	---	---	---	---
21	23.0	22.5	23.0	30.0	28.5	29.0	---	---	---	---	---	---
22	23.0	22.0	22.5	28.5	28.0	28.5	---	---	---	---	---	---
23	23.0	22.0	22.5	29.0	27.5	28.5	26.0	25.0	25.0	---	---	---
24	23.5	22.0	22.5	28.5	28.0	28.5	26.0	25.0	25.0	---	---	---
25	23.0	22.5	23.0	28.0	27.0	27.5	25.5	24.5	25.0	---	---	---
26	24.0	22.5	23.0	27.0	26.5	27.0	25.0	24.5	25.0	---	---	---
27	25.0	23.5	23.5	---	---	---	25.0	24.5	24.5	22.5	22.0	22.0
28	24.5	23.5	24.0	---	---	---	25.0	24.5	25.0	22.5	21.5	22.0
29	24.5	24.0	24.5	---	---	---	25.5	24.5	25.0	21.5	21.5	21.5
30	25.0	24.5	24.5	---	---	---	26.0	25.0	25.5	21.5	21.0	21.5
31	---	---	---	---	---	---	26.0	25.0	26.0	---	---	---
MONTH	25.0	22.0	23.5	30.0	24.5	27.0	29.0	24.5	26.0	27.0	21.0	24.5

01428500 DELAWARE RIVER ABOVE LACKAWAXEN RIVER NEAR BARRYVILLE, NY

LOCATION.--Lat 41°30'32", long 74°59'13", Sullivan County, Hydrologic Unit 02040104, on left bank 1.6 mi (2.6 km) upstream from Lackawaxen River, and 4.6 mi (7.4 km) northwest of Barryville. Water-quality sampling site at discharge station.

DRAINAGE AREA.--2,023 mi^2 (5,240 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1940 to current year.

GAGE.--Water-stage recorder. Datum of gage is 600.22 ft (182.947 m) above mean sea level.

REMARKS.--Records good except those for winter periods, which are poor. Subsequent to September 1954, entire flow from 371 mi^2 (961 km^2) of drainage area controlled by Pepacton Reservoir (see Reservoirs in Delaware River Basin), and subsequent to October 1963, entire flow from 454 mi^2 (1,176 km^2) of drainage area controlled by Cannonsville Reservoir (see Reservoirs in Delaware River Basin). Part of flow of these reservoirs diverted for New York City municipal supply. Remainder of flow (except for conservation releases and spill) impounded for release during periods of low flow in the lower Delaware River basin, as directed by the Delaware River Master.

EXTREMES FOR PERIOD OF RECORD.- Maximum discharge, 130,000 ft^3/s (3,680 m^3/s) Aug. 19, 1955, gage height, 26.40 ft (8.047 m) from floodmarks in gage house, from rating curve extended above 55,000 ft^3/s (1,560 m^3/s) on basis of slope-area measurement at gage height 23.19 ft (7.068 m); minimum, 122 ft^3/s (3.46 m^3/s) Sept. 5, 1953, gage height, 1.11 ft (0.338 m); minimum daily, 126 ft^3/s (3.57 m^3/s) Sept. 4, 1953.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 59,500 ft^3/s (1,685 m^3/s) Mar. 14, gage height, 16.31 ft (4.971 m); minimum, 304 ft^3/s (8.61 m^3/s) Sept. 13, 14, gage height, 1.78 ft (0.543 m); minimum daily, 356 ft^3/s (10.08 m^3/s) Sept. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	943	8050	935	990	490	6000	24200	4750	826	689	1520	1070
2	891	6110	908	960	490	4500	17500	4110	952	732	1570	1200
3	1350	5270	850	940	600	4000	19000	3760	747	1370	1220	1270
4	1120	5600	1050	920	900	3900	14500	3330	1320	1290	850	1300
5	1060	5300	1600	900	1700	14000	12700	4980	1180	908	875	1320
6	1150	4830	1310	880	1900	10000	12500	7650	1160	1040	1050	970
7	1010	4580	1780	860	2000	7600	10700	6280	1080	1530	1390	674
8	1220	4240	5220	820	1900	6200	9150	5030	778	1510	1390	385
9	14200	3760	4650	800	1900	4980	7820	4730	1570	1250	1250	500
10	28300	3470	3980	780	1800	5880	6710	5460	1730	961	952	917
11	10200	3240	4130	750	1800	8180	5910	5520	1570	1250	703	1220
12	6050	2990	3550	740	1700	10000	5250	5940	961	1240	710	810
13	4750	2730	2990	720	1600	21600	4530	6140	762	755	1040	356
14	4650	2540	1940	700	1500	54600	4090	5820	619	667	1360	365
15	4400	2380	1890	680	1600	32100	3680	5220	689	682	1100	593
16	3760	2230	2190	660	1800	21000	3250	4550	770	875	842	660
17	3230	2100	2140	640	1700	15100	2880	3930	826	1330	858	2820
18	2860	1980	1990	620	1500	11400	2590	3410	1200	1040	891	3060
19	2510	1910	1680	600	1800	9290	2360	3120	1460	952	1310	1800
20	2490	1850	1570	580	1900	7360	2130	3230	1240	891	1200	1920
21	16800	1760	1680	560	1800	6140	1920	2730	1240	1110	1060	8830
22	16600	1680	1480	550	1700	5940	1800	2270	725	961	1160	4830
23	11100	1610	1320	540	1500	8430	1810	1910	935	1070	1130	3250
24	8450	1470	1300	540	1600	7720	4700	1690	943	1390	842	2580
25	8380	1400	1200	520	2400	6430	13700	1430	1370	1030	778	14700
26	9360	1290	1200	520	8400	5600	11800	1160	1350	917	725	22800
27	8210	1200	1100	520	7800	5190	9900	961	755	961	944	21000
28	6460	1170	1100	500	9200	5790	8250	834	696	1550	989	9820
29	5520	1230	1100	500	---	9540	6740	747	696	1480	826	5990
30	4850	1270	1000	500	---	24000	5600	778	689	1510	866	4150
31	5960	---	1000	500	---	30800	---	875	---	1460	1070	---
TOTAL	197834	89290	59913	21300	64980	373670	237670	112345	30839	34401	32471	120960
MEAN	6382	2976	1933	687	2321	12050	7922	3624	1028	1110	1047	4032
MAX	28300	8050	5220	990	9200	54600	24200	7650	1730	1550	1570	22800
MIN	891	1170	850	500	490	3900	1800	747	619	667	703	356

CAL YR 1976 TOTAL 1490125 MEAN 4071 MAX 30200 MIN 661
WTR YR 1977 TOTAL 1375673 MEAN 3769 MAX 54600 MIN 356

01428500 DELAWARE RIVER ABOVE LACKAWAXEN RIVER NEAR BARRYVILLE, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1967 to current year (no record for winter months each year except water years 1968 and 1977).

INSTRUMENTATION.--Temperature recorder since October 1967.

REMARKS.--No record Nov. 2-15, June 18 to Sept. 30, due to instrument malfunctions.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES (water years 1968 to 1975): Maximum, 32.0°C Aug. 2, 3 1975; minimum (water years 1968, 1977), freezing point on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Minimum, freezing point on many days during winter period.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	13.5	12.5	13.0	3.0	2.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0
2	15.0	13.0	14.0	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0
3	15.0	14.0	14.5	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0
4	17.5	14.0	15.5	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0
5	17.0	14.0	15.5	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0
6	15.5	14.0	15.0	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0
7	15.0	13.5	14.0	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0
8	14.0	13.0	13.5	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0
9	13.0	9.5	11.5	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0
10	9.5	7.5	8.5	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0
11	7.0	6.0	6.5	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0
12	7.0	5.5	6.0	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0
13	7.0	5.5	6.5	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0
14	7.0	6.5	6.5	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0
15	7.5	5.5	6.5	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0
16	7.5	6.5	7.0	2.0	1.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0
17	6.5	5.0	6.0	1.5	1.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0
18	5.5	4.0	4.5	2.0	1.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0
19	4.5	3.0	3.5	3.0	1.5	2.0	0.0	0.0	0.0	0.0	0.0	0.0
20	3.5	3.0	3.5	2.5	2.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0
21	5.0	3.5	4.5	2.5	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
22	4.5	4.0	4.0	2.0	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0
23	4.0	3.5	4.0	1.5	1.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0
24	4.0	3.5	3.5	1.5	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
25	4.5	3.5	4.0	1.0	0.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0
26	4.5	3.5	4.5	1.5	0.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0
27	3.5	2.0	2.5	3.0	1.5	2.0	0.0	0.0	0.0	0.0	0.0	0.0
28	1.5	0.5	1.5	3.5	2.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0
29	2.0	0.5	1.5	3.5	2.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0
30	2.0	1.0	1.5	1.5	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
31	3.0	2.5	2.5	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0
MONTH	17.5	0.5	7.5	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0

DELAWARE RIVER BASIN

01428500 DELAWARE RIVER ABOVE LACKAWAXEN RIVER NEAR BARRYVILLE, NY--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

	FEBRUARY			MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	0.0	0.0	0.0	0.0	0.0	0.0	5.5	4.5	5.0	13.0	11.0	12.0
2	0.0	0.0	0.0	0.5	0.0	0.0	5.0	4.0	4.5	13.0	12.5	13.0
3	0.0	0.0	0.0	1.0	0.0	0.0	6.0	4.0	5.5	14.0	12.5	13.0
4	0.0	0.0	0.0	0.0	0.0	0.0	6.0	4.5	5.5	13.0	12.5	13.0
5	0.0	0.0	0.0	0.5	0.0	0.0	4.5	4.0	4.5	13.0	12.5	12.5
6	0.0	0.0	0.0	0.5	0.0	0.0	4.5	4.0	4.5	14.5	12.5	13.5
7	0.0	0.0	0.0	0.5	0.0	0.0	4.5	3.5	4.0	16.0	14.0	15.0
8	0.0	0.0	0.0	1.5	0.0	0.5	5.5	4.0	5.0	15.5	14.0	15.0
9	0.0	0.0	0.0	4.0	1.0	2.5	5.0	3.5	4.5	14.5	11.0	12.5
10	0.0	0.0	0.0	5.0	3.5	4.5	6.0	3.5	5.0	11.0	10.0	10.5
11	0.0	0.0	0.0	5.5	4.5	5.0	8.0	5.5	6.5	12.0	10.0	11.0
12	0.0	0.0	0.0	5.5	4.5	5.0	11.0	8.0	9.5	14.0	11.5	12.5
13	0.0	0.0	0.0	5.5	4.5	5.0	13.0	10.5	12.0	15.0	13.5	14.0
14	0.0	0.0	0.0	4.5	4.0	4.0	13.5	12.0	13.0	15.0	13.0	14.0
15	0.0	0.0	0.0	4.5	4.0	4.5	13.0	11.5	12.5	15.0	13.0	14.0
16	0.0	0.0	0.0	5.0	4.0	4.5	12.5	10.5	11.5	15.5	13.5	14.5
17	0.0	0.0	0.0	4.5	4.0	4.0	13.0	10.5	11.5	17.5	15.0	16.5
18	0.0	0.0	0.0	3.5	1.5	2.5	14.0	11.0	12.0	19.5	17.5	18.0
19	0.0	0.0	0.0	2.5	1.0	1.5	15.5	11.5	13.5	21.0	19.0	19.5
20	0.0	0.0	0.0	2.5	2.0	2.0	16.0	13.0	14.5	22.0	19.5	21.0
21	0.0	0.0	0.0	3.5	1.5	2.5	17.5	14.0	15.5	23.0	20.5	21.5
22	0.0	0.0	0.0	3.5	2.0	3.0	19.5	15.5	17.5	25.0	21.0	23.0
23	0.0	0.0	0.0	2.0	1.5	2.0	18.5	16.5	18.0	25.5	22.0	23.5
24	0.0	0.0	0.0	1.5	1.0	1.5	16.5	12.5	15.0	26.0	23.0	24.5
25	0.0	0.0	0.0	2.0	1.0	1.5	12.5	10.0	11.0	27.0	23.5	25.0
26	0.0	0.0	0.0	3.5	1.5	2.5	10.0	9.0	9.0	27.5	23.0	25.0
27	0.0	0.0	0.0	5.0	3.0	4.0	10.0	9.0	9.5	26.5	21.5	24.0
28	0.0	0.0	0.0	5.5	5.0	5.0	11.5	10.0	10.5	27.0	22.0	24.5
29	---	---	---	6.0	4.5	5.5	10.5	9.0	10.0	24.5	21.0	22.5
30	---	---	---	6.5	5.5	6.0	11.5	9.5	10.5	25.5	20.0	22.5
31	---	---	---	7.0	5.5	6.5	---	---	---	25.5	21.0	23.0
MONTH	0.0	0.0	0.0	7.0	0.0	3.0	19.5	3.5	9.5	27.5	10.0	17.5

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	23.0	21.5	22.0									
2	25.5	21.0	23.0									
3	24.5	20.0	22.0									
4	23.5	19.0	21.5									
5	23.5	20.0	21.5									
6	21.0	18.5	19.5									
7	19.0	16.5	18.0									
8	19.0	15.0	17.0									
9	17.0	15.0	15.5									
10	16.5	14.0	15.0									
11	17.0	14.5	15.5									
12	20.5	15.0	17.5									
13	23.0	18.5	20.5									
14	22.0	20.5	21.0									
15	26.0	20.5	22.5									
16	26.5	22.0	24.0									
17	25.0	23.0	24.0									
18	---	---	---									
19	---	---	---									
20	---	---	---									
21	---	---	---									
22	---	---	---									
23	---	---	---									
24	---	---	---									
25	---	---	---									
26	---	---	---									
27	---	---	---									
28	---	---	---									
29	---	---	---									
30	---	---	---									
31	---	---	---									
MONTH	---	---	---									

01429000 WEST BRANCH LACKAWAXEN RIVER AT PROMPTON, PA

LOCATION.--Lat 41°35'14", long 75°19'38", Wayne County, Hydrologic Unit 02040103, on right bank 500 ft (150 m) downstream from Prompton Lake, 1,500 ft (460 m) upstream from bridge on U.S. Highway 6 at Prompton, and 2,000 ft (610 m) upstream from Van Auken Creek.

DRAINAGE AREA.--59.7 mi^2 (154.6 km^2).

PERIOD OF RECORD.--August 1944 to current year. Prior to October 1952, published as Lackawaxen River at Prompton.

REVISED RECORDS.--WSP 1432: 1948-49. WDR PA-71: 1970(M).

GAGE.--Water-stage recorder. Datum of gage is 1,083.78 ft (330.336 m) above mean sea level.

REMARKS.--Records poor. Flow regulated by Prompton Lake 500 ft (150 m) upstream.

AVERAGE DISCHARGE.--33 years, 111 ft^3/s (3.14 m^3/s), 25.25 in/yr (641 mm/yr), adjusted for storage since January 1961.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,860 ft^3/s (166 m^3/s) Aug. 18, 1955, gage height, 9.24 ft (2.816 m), from rating curve extended above 3,600 ft^3/s (102 m^3/s); no flow July 26 to Aug. 25, 1960, result of construction work upstream.

EXTREMES OUTSIDE OF PERIOD OF RECORD.--Flood of May 23, 1942, reached a stage of 16.7 ft (5.09 m), from floodmark.

EXTREMES FOR CURRENT YEAR.--Maximum discharge observed, 3,610 ft^3/s (102 m^3/s) Mar. 14, gage height, 7.00 ft (2.134 m); minimum daily observed, 10 ft^3/s (0.28 m^3/s) July 1-5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	120	280	102	33	21	970	650	518	24	10	12	16
2	65	280	64	31	20	440	650	492	25	10	16	18
3	75	245	56	30	19	95	640	395	24	10	17	18
4	90	210	56	30	20	110	630	350	23	10	19	20
5	95	180	59	29	22	200	630	395	21	10	17	26
6	80	175	61	28	23	290	540	573	20	12	16	22
7	65	180	64	28	23	395	540	590	22	14	17	20
8	60	190	250	28	23	415	510	601	22	18	18	18
9	70	195	103	28	23	200	480	619	22	20	16	15
10	150	200	91	28	22	165	430	630	32	20	15	13
11	340	210	81	28	22	150	400	467	36	17	13	13
12	540	220	74	28	21	600	380	350	32	17	13	12
13	785	170	61	27	23	1240	350	182	27	17	13	12
14	460	140	56	26	26	1960	330	143	24	19	13	13
15	200	120	56	26	31	1090	300	117	23	17	14	24
16	210	100	55	26	36	695	220	91	22	16	14	36
17	180	95	52	26	42	660	140	82	20	15	16	49
18	150	90	48	26	36	580	100	82	20	15	20	56
19	125	85	46	26	31	590	80	60	20	15	20	56
20	115	80	50	25	33	595	75	56	18	16	18	91
21	115	80	49	24	36	605	55	52	17	17	16	124
22	660	85	46	24	39	640	55	46	15	17	16	124
23	600	85	44	24	42	720	180	42	13	14	18	163
24	570	90	41	24	42	750	380	39	13	12	17	192
25	520	90	40	24	72	720	630	37	13	13	17	1020
26	480	90	40	23	601	680	600	34	13	16	16	1250
27	440	95	39	24	741	645	600	26	13	16	15	985
28	395	95	36	23	896	615	600	25	13	14	15	494
29	300	100	36	22	---	660	495	22	13	13	15	322
30	280	100	35	22	---	660	500	21	14	12	17	322
31	280	---	34	22	---	1100	---	18	---	11	17	---
TOTAL	8615	4355	1925	813	2986	19235	12170	7155	614	453	496	5546
MEAN	278	145	62.1	26.2	107	620	406	231	20.5	14.6	16.0	185
MAX	785	280	250	33	896	1960	650	630	36	20	20	1250
MIN	60	80	34	22	19	95	55	18	13	10	12	12
MEAN≠	286	137	60.8	24.9	136	623	394	212	20.3	14.4	16.2	210
CFSM≠	4.79	2.29	1.02	.42	2.28	10.44	6.60	3.55	.34	.24	.27	3.52
IN.≠	5.52	2.56	1.18	.48	2.37	12.04	7.36	4.09	.38	.28	.31	3.93

CAL YR 1976 TOTAL 47999 MEAN 131 MAX 824 MIN 23 MEAN≠ 131 CFSM≠ 2.19 IN.≠ 29.91
WTR YR 1977 TOTAL 64363 MEAN 176 MAX 1960 MIN 10 MEAN≠ 176 CFSM≠ 2.95 IN.≠ 40.11

≠ Adjusted for change in contents in Prompton Lake.

01429500 DYBERRY CREEK NEAR HONESDALE, PA

LOCATION.--Lat 41°36'26", long 75°16'03", Wayne County, Hydrologic Unit 02040103, on right bank 180 ft (55 m) upstream from unnamed tributary, 1,700 ft (518 m) downstream from General Edgar Jadwin Reservoir, 2.1 mi (3.4 km) north of Honesdale, and 2.6 mi (4.2 km) upstream from mouth.

DRAINAGE AREA.--64.6 mi^2 (167.3 km^2).

PERIOD OF RECORD.--October 1943 to current year. Published as "at Dyberry" October 1943 to September 1959 and as "near Dyberry" October 1959 to September 1961.

REVISED RECORDS.--WSP 1382: 1947(M), 1950(M), 1951-53.

GAGE.--Water-stage recorder. Datum of gage is 970.70 ft (295.869 m) above mean sea level. Prior to Oct. 1, 1957, nonrecording gage at site 1.9 mi (3.1 km) upstream at datum 13.70 ft (4.176 m) higher.

REMARKS.--Records good. Flow regulated since 1960 by General Edgar Jadwin Reservoir 1,700 ft (518 m) upstream.

AVERAGE DISCHARGE.--34 years, 113 ft^3/s (3.20 m^3/s), 23.75 in/yr (603 mm/yr), adjusted for storage since October 1959.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,500 ft^3/s (439 m^3/s) July 10, 1952, gage height, 14.6 ft (4.45 m), site and datum then in use, from rating curve extended above 2,500 ft^3/s (71 m^3/s) on basis of slope-area measurement at gage height 13.78 ft (4,200 m), site and datum then in use; no flow Oct. 2, 3, 1968, result of shutoff at General Edgar Jadwin Reservoir.

EXTREMES OUTSIDE OF PERIOD OF RECORD.--Flood of May 23, 1942, reached a stage of 15.86 ft (4.834 m), site and datum then in use, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,800 ft^3/s (51.0 m^3/s) Mar. 14, gage height, 6.18 ft (1.884 m); minimum, 8.3 ft^3/s (0.24 m^3/s) July 24, 31, gage height, 1.18 ft (0.360 m); minimum daily, 8.8 ft^3/s (0.25 m^3/s) July 24, 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	347	44	29	20	395	684	102	18	14	12	12
2	22	189	50	29	19	231	478	98	20	13	14	12
3	24	162	39	29	20	185	1160	96	17	11	14	12
4	29	232	44	28	21	441	680	84	15	11	13	12
5	23	174	48	28	20	1430	507	335	15	11	11	12
6	21	164	42	28	19	1040	468	243	15	14	11	16
7	18	159	191	27	19	424	309	171	21	17	30	13
8	28	148	213	27	19	278	248	129	18	34	20	12
9	1080	118	115	26	19	281	191	138	25	19	13	11
10	1420	114	92	26	18	429	166	145	82	13	12	11
11	446	111	80	26	20	495	148	116	46	13	10	10
12	164	98	70	26	27	470	136	98	30	12	10	10
13	124	90	60	26	37	992	124	86	23	12	11	10
14	224	86	49	25	51	1780	116	74	21	13	11	12
15	131	80	54	25	41	1630	98	67	24	11	16	12
16	100	74	52	25	31	1140	86	62	21	9.3	14	12
17	84	69	50	25	28	410	78	56	17	11	28	29
18	72	72	49	24	27	256	74	51	19	12	32	37
19	64	69	48	24	25	252	69	57	18	12	19	39
20	174	65	47	23	24	193	67	53	28	16	13	50
21	1300	62	49	23	27	172	82	43	17	14	11	94
22	920	59	42	23	26	189	65	38	14	11	30	75
23	290	57	40	23	28	281	78	34	13	10	31	62
24	243	54	38	22	63	192	543	30	12	8.8	17	70
25	406	53	36	22	817	154	604	30	13	10	14	540
26	482	51	35	22	512	141	270	28	15	17	11	930
27	273	53	34	22	399	152	211	26	14	12	10	880
28	181	56	33	21	700	208	166	23	12	13	9.3	240
29	152	65	32	21	---	498	133	20	12	11	9.1	190
30	129	50	31	20	---	1180	116	20	14	9.3	10	133
31	395	---	30	20	---	1200	---	19	---	8.8	11	---
TOTAL	9046	3181	1837	765	3077	17119	8155	2572	629	403.2	477.4	3558
MEAN	292	106	59.3	24.7	110	552	272	83.0	21.0	13.0	15.4	119
MAX	1420	347	213	29	817	1780	1160	335	82	34	32	930
MIN	18	50	30	20	18	141	65	19	12	8.8	9.1	10
MEAN≠	294	104	53.3	24.7	113	555	266	83.0	21.0	13.0	15.4	119
CFSM≠	4.55	1.61	.83	.38	1.75	8.59	4.12	1.28	.33	.20	.24	1.84
IN.≠	5.25	1.80	.96	.44	1.82	9.90	4.60	1.48	.37	.23	.28	2.05

CAL YR 1976 TOTAL 52061.0 MEAN 142 MAX 1420 MIN 17 MEAN≠ 142 CFSM≠ 2.20 IN.≠ 29.98
WTR YR 1977 TOTAL 50819.6 MEAN 139 MAX 1780 MIN 8.8 MEAN≠ 139 CFSM≠ 2.16 IN.≠ 29.26

≠ Adjusted for change in contents in General Edgar Jadwin Reservoir.

01431500 LACKAWAXEN RIVER AT HAWLEY, PA

LOCATION.--Lat 41°28'34", long 75°10'21", Wayne County, Hydrologic Unit 02040103, on left bank at Church Street Bridge in Hawley, 700 ft (213 m) upstream from Wallenpaupack Creek, and 3,000 ft (914 m) downstream from Middle Creek.

DRAINAGE AREA.--290 mi^2 (751 km^2).

PERIOD OF RECORD.--July 1908 to September 1917, August 1938 to current year. Monthly discharge only for some periods, published in WSP 1302. October 1917 to December 1919, gage heights and discharge measurements only, in reports of Water Supply Commission of Pennsylvania.

REVISED RECORDS.--WSP 1951: 1938-41. WSP 1302: 1909-17. WSP 1432: 1942. WSP 1502: 1956.

GAGE.--Nonrecording gage, water-stage recorder, and crest-stage gage. Datum of gage is 869.00 ft (264.871 m) above mean sea level. Prior to 1938, nonrecording gage at same site and datum. August 10, 1938 to August 19, 1955, water-stage recorder and August 20, 1955 to February 13, 1956, nonrecording gage at site 1,000 ft (300 m) downstream at same datum.

REMARKS.--Records fair. Regulation by Prompton Lake and, at high flow, by General Edgar Jadwin Lake located 14.9 mi (24.0 km) and 13.0 mi (20.9 km) upstream, respectively (see p.32).

AVERAGE DISCHARGE.--48 years (1908-17, 1938-77), 482 ft^3/s (13.7 m^3/s), 22.57 in/yr (573 mm/yr), adjusted for storage since October 1959.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 51,900 ft^3/s (1,470 m^3/s) Aug. 19, 1955, gage height, 24.8 ft (7.56 m) at present site, 20.6 ft (6.28 m) at former site, from floodmark, from rating curve extended above 12,000 ft^3/s (340 m^3/s) on basis of slope-area measurement at gage height 24.2 ft (7.38 m) at present site, 20.1 ft (6.13 m) at former site; minimum daily, 8 ft^3/s (0.23 m^3/s) Sept. 8, 1909.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1936 reached a stage of 19.1 ft (5.82 m) at present site, 13.9 ft (4.24 m) at former site, from floodmarks, discharge, 27,600 ft^3/s (782 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,740 ft^3/s (219 m^3/s) Mar. 14, gage height, 9.03 ft (2.752 m); minimum observed, 43 ft^3/s (1.22 m^3/s) July 25 and Aug. 1; minimum daily, 45 ft^3/s (1.27 m^3/s) July 31, Aug. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	152	1140	165	170	105	2600	2550	483	89	61	45	61
2	142	778	160	160	100	1900	1920	424	89	57	68	61
3	142	682	160	150	100	1670	4800	406	87	53	63	60
4	195	742	150	150	105	2420	2750	383	80	50	65	60
5	150	652	150	150	110	5960	1980	694	73	48	60	60
6	133	612	140	140	110	4490	1870	960	74	52	57	82
7	124	612	448	140	115	2530	1340	946	89	66	68	66
8	124	596	760	140	110	1240	1120	640	89	80	64	61
9	2710	488	536	140	110	1760	869	634	152	94	61	57
10	4280	383	444	140	110	2220	730	670	306	81	56	56
11	2000	392	337	140	110	2480	629	546	210	73	56	53
12	955	397	300	140	260	2400	558	473	152	71	53	50
13	712	362	270	130	341	3960	504	415	118	67	50	50
14	658	341	260	130	634	6450	454	354	101	68	52	61
15	629	329	300	130	514	4550	397	306	99	66	62	63
16	478	302	280	130	290	4060	349	284	94	59	62	63
17	397	280	250	130	260	2620	310	270	84	56	101	104
18	341	266	220	130	240	2060	291	256	83	57	136	136
19	295	263	170	130	230	1880	273	249	83	57	96	142
20	398	249	190	130	230	1680	252	235	81	61	76	182
21	3850	232	210	120	250	1520	246	204	92	61	67	341
22	3250	223	200	120	240	1790	235	181	77	60	71	270
23	1540	213	190	120	260	2020	239	160	68	56	92	223
24	1040	201	180	120	354	1400	1180	147	65	50	74	254
25	1550	193	180	120	4410	1570	1070	138	65	48	72	2300
26	1860	187	180	120	3130	1380	694	131	72	57	60	4020
27	1320	181	180	120	2810	1430	1030	116	71	59	57	3960
28	946	190	170	110	3480	1830	862	108	67	57	56	1680
29	742	201	170	110	---	2390	682	102	66	57	56	869
30	634	198	160	110	---	4060	563	96	65	47	56	585
31	984	---	170	110	---	3850	---	93	---	45	58	---
TOTAL	32731	11885	7680	4080	19118	82170	30747	11104	2941	1874	2075	16030
MEAN	1056	396	248	132	683	2651	1025	358	98.0	60.5	66.9	534
MAX	4280	1140	760	170	4410	6450	4800	960	306	94	136	4020
MIN	124	181	140	110	100	1240	235	93	65	45	45	50
MEAN≠	1066	385	247	131	714	2657	1007	339	97.8	60.3	67.1	559
CFSM≠	3.68	1.33	.85	.45	2.46	9.16	3.47	1.17	.34	.21	.23	1.93
IN.≠	4.24	1.48	.98	.52	2.56	10.56	3.87	1.35	.38	.24	.26	2.15

CAL YR 1976 TOTAL 195558 MEAN 534 MAX 4780 MIN 81 MEAN≠ 534 CFSM≠ 1.84 IN.≠ 24.95
WTR YR 1977 TOTAL 222435 MEAN 609 MAX 6450 MIN 45 MEAN≠ 609 CFSM≠ 2.10 IN.≠ 28.38

≠ Adjusted for change in contents in Prompton Lake and General Edgar Jadwin Reservoir.

01432000 WALLENPAUPACK CREEK AT WILSONVILLE, PA

LOCATION.--At hydroelectric plant of Pennsylvania Power and Light Co., at lower end of penstock, at Kimble, 3 mi (5 km) east of dam which is at lat 41°27'33", long 75°11'08", Pike County, Hydrologic Unit 02040103, at Wilsonville, 1.2 mi (1.9 km) south of Hawley.

DRAINAGE AREA.--228 sq mi (591 sq km).

PERIOD OF RECORD.--October 1909 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 756: Drainage area. WSP 1302: 1918, 1923-24. WSP 1432: 1920-21. The mean discharge for September 1966 has been corrected to 141 ft³/s (3.99 m³/s), superseding figure published in WDR PA-66.

GAGE.--Daily discharge determined from flow through turbines, computed from records of generator output and flow over roller gates, computed on basis of head on gates. Prior to Nov. 3, 1925, nonrecording gage at site 1,000 ft (300 m) downstream from dam at datum 1,146.78 ft (349.539 m) above mean sea level, unadjusted.

REMARKS.--Records good. No flow over spillway or roller gates. Flow regulated by Lake Wallenpaupack (see p. 32).

COOPERATION.--Records of generator load, operation of powerplant, net operating head, water-surface elevations in lake and daily discharges furnished by Pennsylvania Power and Light Co., in connection with a Federal Power Commission project.

AVERAGE DISCHARGE.--68 years, 363 ft³/s (10.3 m³/s), 21.62 in/yr (549 mm/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 6,440 ft³/s (183 m³/s) June 30, 1973; no flow at times each year subsequent to Nov. 3, 1925.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	605	862	564	.00	135	.00	1400	.00	.00	575	.00	.00
2	47	856	696	.00	.00	.00	1400	843	.00	.00	399	62
3	.00	855	725	803	213	460	1390	.00	.00	.00	460	.00
4	602	844	.00	609	.00	498	1680	3.0	.00	.00	455	.00
5	.00	876	53	.00	136	.00	1710	.00	.00	646	473	.00
6	.00	498	535	541	70	.00	1680	.00	.00	416	.00	1010
7	.00	.00	402	757	609	553	1680	.00	.00	3.3	.00	993
8	.00	829	1070	541	576	575	1370	.00	.00	18	664	993
9	.00	609	725	172	140	597	1380	303	.00	.00	516	1010
10	.00	437	594	940	21	573	1380	384	.00	.00	566	.00
11	470	476	.00	1180	.00	573	1380	298	.00	.00	581	.00
12	590	524	.00	1190	.00	446	848	372	.00	316	582	995
13	449	.00	351	1150	.00	.00	1040	.00	260	554	.00	998
14	25	12	504	903	564	573	1040	.00	355	722	.00	993
15	.00	541	.00	.00	888	849	766	.00	332	294	578	976
16	.00	491	.00	533	1080	897	.00	292	333	327	588	972
17	28	.00	.00	1330	822	861	.00	.00	487	30	25	.00
18	475	.00	.00	991	256	974	654	683	.00	1100	1.7	.00
19	.00	.00	.00	903	.00	1280	583	343	.00	1130	.00	989
20	414	.00	.00	856	.00	.00	325	594	832	1080	.00	1020
21	505	.00	634	939	.00	606	332	.00	993	791	.00	993
22	508	511	574	1050	145	846	37	.00	1030	.00	.00	1020
23	.00	447	471	247	.00	948	.00	.00	756	.00	466	594
24	.00	463	43	913	370	1040	.00	.00	956	.00	480	.00
25	798	.00	.00	782	156	1020	612	.00	.00	.00	521	.00
26	802	.00	.00	800	.00	8.8	755	.00	.00	.00	.00	1030
27	809	9.9	467	896	.00	.00	847	19	976	.00	.00	1470
28	808	.00	404	315	.00	1030	829	.00	989	.00	.00	1470
29	867	452	399	.00	---	1030	857	.00	564	.00	702	1470
30	485	557	399	58	---	1090	.00	.00	571	.00	.00	1310
31	.00	---	405	462	---	1070	---	.00	---	.00	.00	---
TOTAL	9287.00	11149.90	10015.00	19861.00	6181.00	18397.00	25975.00	4134.00	9434.00	8002.30	8057.70	20368.00
MEAN	300	372	323	641	221	593	866	133	314	258	260	679
MAX	867	876	1070	1330	1080	1280	1710	843	1030	1130	702	1470
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

CAL YR 1976 TOTAL 137837.30 MEAN 377 MAX 1800 MIN .00
WTR YR 1977 TOTAL 150862.70 MEAN 413 MAX 1710 MIN .00

LAKES AND RESERVOIRS IN LACKAWAXEN RIVER BASIN

01428900 PROMPTON RESERVOIR.--Lat 41°35'18", long 75°19'39", Wayne County, Hydrologic Unit 02040103, at dam on West Branch Lackawaxen River, 0.3 mi (0.5 km) north of Prompton, 0.4 mi (0.6 km) upstream from highway bridge and 0.5 mi (0.8 km) upstream from Van Auken Creek. DRAINAGE AREA, 59.6 mi² (154 km²). PERIOD OF RECORD: December 1960 to current year. GAGE, water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers).

Reservoir formed by an earth and rockfill dam with ungaged bedrock spillway at elevation 1,205.00 ft (367.284 m). Storage began July 1960. Capacity at elevation 1,205.00 ft (367.284 m) is 51,700 acre-ft (63.7 hm³). Ordinary minimum (conservation) pool elevation, 1,125.00 ft or 342.900 m (capacity, 3,420 acre-ft or 4.22 hm³). Reservoir is used for flood control and recreation. Figures given herein represent total contents. Regulation is accomplished by discharge through an ungated tunnel. Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 8,170 acre-ft (10.1 hm³) June 29, 1973 (elevation, 1,138.40 ft or 347.070 m); minimum (after first filling), 2,920 acre-ft (3.60 hm³) Sept. 27, 1964 (elevation, 1,123.20 ft or 342.351 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 5,980 acre-ft (7.37 hm³) March 14 (elevation, 1,133.00 ft or 345.338 m); minimum, 3,420 acre-ft (4.22 hm³) Feb. 5-13 (elevation, 1,125.00 ft or 342.900 m).

01429400 GENERAL EDGAR JADWIN RESERVOIR.--Lat 41°36'44", long 75°15'55", Wayne County, Hydrologic Unit 02040103, at dam on Dyberry Creek, 0.45 mi (0.72 km) upstream from unnamed tributary, 2.4 mi (3.9 km) north of Honesdale, and 2.9 mi (4.7 km) upstream from mouth. DRAINAGE AREA, 64.5 mi² (167.1 km²). PERIOD OF RECORD, October 1959 to current year. GAGE, water-stage recorder. Datum of gage is at mean sea level (levels by (Corps of Engineers).

Reservoir formed by an earth and rockfill dam with ungated, concrete spillway at elevation, 1,053.00 ft (320.954 m). Storage began in October 1959. Capacity at elevation 1,053.00 ft (320.954 m) is 24,500 acre-ft (30.2 hm³). Reservoir is used for flood control. Figures given herein represent total contents. Regulation is accomplished by discharge through an ungated tunnel. Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 6,520 acre-ft (8.04 hm³) June 19, 1973 (elevation, 1,017.40 ft or 310.104 m); minimum, no storage many times.

EXTREMES FOR CURRENT YEAR: Maximum contents, 5,500 acre-ft (6.78 hm³) Mar. 14 (elevation, 1,014.00 ft or 309.067 m); minimum, no storage many times.

01431700 LAKE WALLENPAUPACK.--Lat 41°27'35", long 75°11'10", Wayne County, Hydrologic Unit 02040103, at dam on Wallenpaupack Creek at Wilsonville, 1.2 mi (1.9 km) south of Hawley and 1.5 mi (2.4 km) upstream from mouth. DRAINAGE AREA, 228 mi² (591 km²). PERIOD OF RECORD, January 1926 to current year. GAGE, vertical staff. Datum of gage is at mean sea level (levels by Pennsylvania Power and Light Co.).

Reservoir formed by concrete gravity-type and earthfill dam, with concrete spillway at elevation, 1,176.00 ft (358.445 m) in two sections. Spillway equipped with roller gate, 14 ft high (4.267 m) on each section. Storage began Nov. 3, 1925; water in reservoir first reached minimum pool elevation in January 1926. Total capacity at elevation, 1,190.00 ft or 362.712 m (top of gates) is 209,300 acre-ft (258 hm³), of which 157,800 acre-ft (195 hm³) is controlled storage above elevation, 1,160.00 ft or 353.568 m (minimum pool). Reservoir is used for generation of hydroelectric power. Figures given herein represent usable contents. Records furnished by Pennsylvania Power and Light Co.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 178,200 acre-ft (220 hm³) Aug. 19-21, 1955 (elevation, 1,193.45 ft or 363.764 m); minimum (after first filling), 12,280 acre-ft (15.1 hm³) Mar. 28, 1958 (elevation, 1,162.60 ft or 354.360 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 141,070 acre-ft (174 hm³) June 30 (elevation, 1,187.10 ft or 361.828 m); minimum 59,720 acre-ft (73.6 hm³) Feb. 18 (elevation, 1,172.10 ft or 357.256 m).

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in cfs)	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in cfs)
	01428900	Prompton Lake		01429400	General Edgar	Jadwin Reservoir
Sept. 30	1,126.05	3,710	--	975.33	0	--
Oct. 31	1,127.58	4,170	+ 7.5	982.41	136	+ 2.3
Nov. 30	1,125.90	3,670	- 8.4	975.76	0	- 2.3
Dec. 31	1,125.60	3,590	- 1.3	975.40	0	0
CAL YR 1976	--	--	0	--	--	0
Jan. 31	1,125.33	3,510	- 1.3	975.08	0	0
Feb. 28	1,130.54	5,110	+ 28.8	982.80	152	+ 2.7
Mar. 31	1,131.10	5,300	+ 3.1	986.74	344	+ 3.1
Apr. 30	1,128.90	4,590	- 11.9	977.06	0	- 5.8
May 31	1,125.07	3,440	- 18.7	975.00	0	0
June 30	1,125.02	3,430	- 0.2	974.90	0	0
July 31	1,125.01	3,420	- 0.2	974.55	0	0
Aug. 31	1,125.02	3,430	+ 0.2	974.65	0	0
Sept. 30	1,129.90	4,910	+ 24.9	977.21	0	0
WTR YR 1977	--	--	+ 1.7	--	--	0
	01431700	Lake Wallenpaupack				
Sept. 30	1,178.50	93,500	--			
Oct. 31	1,181.90	111,950	+300			
Nov. 30	1,180.70	105,380	-110			
Dec. 31	1,180.10	102,140	- 52.7			
CAL YR 1976	--	--	- 7.5			
Jan. 31	1,173.70	68,040	-555			
Feb. 28	1,175.30	76,390	+150			
Mar. 31	1,183.60	121,360	+731			
Apr. 30	1,184.50	126,400	+ 84.7			
May 31	1,186.50	137,650	+183			
June 30	1,184.30	125,280	-208			
July 31	1,181.60	110,300	-244			
Aug. 31	1,179.50	98,900	-185			
Sept. 30	1,174.10	70,120	-484			
WTR YR 1977	--	--	- 32.3			

01434000 DELAWARE RIVER AT PORT JERVIS, NY

LOCATION.--Lat 41°22'14", long 74°41'52", Pike County, Pa., Hydrologic Unit 02040104, on right bank 250 ft (76 m) downstream from bridge (on U.S. Highways 6 and 209) between Port Jervis, N.Y. and Matamoras, Pa., 1.2 mi (1.9 km) upstream from Neversink River, and 6.5 mi (10.5 km) downstream from Mongaup River. Water-quality sampling site at discharge station.

DRAINAGE AREA.--3,076 mi^2 (7,967 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1904 to current year.

REVISED RECORDS.--WSP 756: Drainage area. WSP 1031: 1905-36. WRD NY 1971: 1970.

GAGE.--Water-stage recorder. Datum of gage is 415.35 ft (126.599 m) above mean sea level. October 1904 to August 13, 1928, nonrecording gage at bridge 250 ft upstream at present datum; operated by U.S. Weather Bureau prior to June 20, 1914.

REMARKS.--Records good except those for winter periods, which are poor. Flow regulated by Lake Wallenpaupack and by Toronto, Cliff Lake, and Swinging Bridge Reservoirs (see Reservoirs in Delaware River Basin) and smaller reservoirs. Large diurnal fluctuations at medium and low flows caused by powerplants on tributary streams. Subsequent to September 1954, entire flow from 371 mi^2 (961 km^2) of drainage area controlled by Pepacton Reservoir, and subsequent to October 1963, entire flow from 454 mi^2 (1,176 km^2) of drainage area controlled by Cannonsville Reservoir (see Reservoirs in Delaware River Basin). Part of flow from these reservoirs diverted for New York City municipal supply. Remainder of flow (except for conservation releases and spill) impounded for release during periods of low flow in the lower Delaware River basin, as directed by the Delaware River Master.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 233,000 ft^3/s (6,600 m^3/s) Aug. 19, 1955, gage height, 23.91 ft (7.288 m), from floodmarks in gage house, from rating curve extended above 89,000 ft^3/s (2,520 m^3/s) on basis of slope-area measurement of peak flow; minimum observed, 175 ft^3/s (4.96 m^3/s) Sept. 23, 1908, gage height, 0.6 ft (0.18 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge previously known, 205,000 ft^3/s (5,810 m^3/s) Oct. 10, 1903, gage height, 23.1 ft (7.04 m), reported by U.S. Weather Bureau, from rating curve extended above 70,000 ft^3/s (1,980 m^3/s) by velocity-area studies; maximum stage known, 25.5 ft (7.77 m) Mar. 8, 1904 (ice jam).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 77,000 ft^3/s (2,180 m^3/s) Mar. 14, gage height, 13.82 ft (4.212 m); maximum gage height, 14.35 ft (4.374 m) Feb. 26 (ice jam); minimum discharge, 673 ft^3/s (19.1 m^3/s) Sept. 14, gage height, 1.65 ft (0.503 m); minimum daily, 800 ft^3/s (22.7 m^3/s) Feb. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2340	11700	2320	1800	1600	13000	31600	6680	1150	1820	1820	1710
2	1820	9830	2040	2100	920	9340	23300	6270	1160	1340	2350	1500
3	1730	8570	2420	2500	800	8140	24300	6160	1050	1240	1930	1500
4	2220	8560	2280	2300	960	7460	22400	5220	1290	1430	1730	1300
5	2270	8520	1510	1900	1400	21000	20200	6300	1330	1600	1560	1480
6	2090	7890	2450	1800	2100	20700	20000	10200	1410	1360	1320	1720
7	1640	6910	3530	2500	2200	14400	17300	6550	1360	2120	1550	1880
8	1820	6740	8290	2700	2800	10700	14900	6790	1170	1630	1800	1580
9	10400	6620	9010	2600	2600	8450	13000	6870	1560	1720	2160	1570
10	37400	5800	6460	2000	2200	9700	11500	8170	2710	1190	1720	1620
11	18100	5640	5200	2900	2100	11400	10400	7930	2400	1590	1670	1380
12	9450	5230	4670	2900	2000	13000	9030	7930	1710	1660	1430	1270
13	7680	4590	4500	2900	1900	21100	8140	7930	1230	1810	1250	1580
14	6720	4170	4520	2700	1600	59100	7420	7530	1610	1960	1560	1460
15	6660	4270	3370	2400	2100	44400	6850	6380	1350	2140	1590	1640
16	5190	4080	3200	1500	2900	28400	5420	6230	1390	1340	1680	1940
17	4390	3850	3330	2300	3000	21900	3980	5100	1420	1940	1820	2660
18	4490	3480	2880	3000	2300	16400	4120	4580	1670	1880	1260	4080
19	4110	2960	2440	2700	1900	14600	3900	4870	1770	2700	1630	2780
20	4030	2470	2620	2400	1600	11300	3620	4650	1900	2480	1520	3260
21	18000	2980	2850	2300	1900	9470	2990	3710	2530	2820	1270	9600
22	23700	2910	3670	2300	1700	11100	2610	2880	2020	1820	1530	7590
23	15200	2470	2990	2400	1800	15100	2920	2730	1900	963	1870	5530
24	11500	2720	2020	1800	1800	13500	5490	2570	1910	1550	1860	3720
25	11700	2260	2130	2500	5000	11400	17700	2610	1960	1190	1800	13500
26	13700	2030	1860	2000	11000	9460	16100	2350	1790	1130	1600	28300
27	12030	1880	2350	1800	10000	8810	13900	1490	1330	903	922	30200
28	10400	1780	2400	1800	11000	9540	12200	1250	1920	1530	1210	15600
29	9100	2310	2300	1400	---	12400	9980	1090	1960	1560	1460	10500
30	8670	2730	2100	900	---	24600	8130	1050	1830	1610	1890	8070
31	7720	---	1900	1100	---	38900	---	1060	---	1630	1630	---
TOTAL	276060	146800	104640	68100	83380	543270	358900	157130	49790	51686	50392	170520
MEAN	8905	4893	3375	2197	2978	17520	11960	5069	1660	1667	1626	5687
MAX	37400	11700	9010	3000	11000	59100	31600	10200	2710	2820	2350	30200
MIN	1640	1780	1510	900	800	7460	2610	1050	1050	903	922	1270

CAL YR 1976 TOTAL 2194170 MEAN 5995 MAX 50200 MIN 1340
WTR YR 1977 TOTAL 2059540 MEAN 5643 MAX 69100 MIN 800

01434000 DELAWARE RIVER AT PORT JERVIS, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1957 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: February 1957 to September 1960, January to September 1973, June 1974 to current year.

INSTRUMENTATION.--Temperature recorder since January 1973.

REMARKS.--New York State Water Quality Surveillance Network station 14 0010.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 29.5°C July 19, 1959, Aug. 3, 1975; minimum (water years 1957-60, 73, 75-77), freezing point on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 28.0°C July 17, 18; minimum, freezing point on many days during winter period.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	15.5	13.5	14.5	7.5	7.0	7.0	1.5	0.5	1.0	1.0	0.5	0.5
2	15.5	14.5	15.0	7.0	5.5	6.5	1.0	0.5	1.0	0.5	0.0	0.5
3	15.5	15.0	15.0	6.5	6.0	6.5	1.5	0.5	1.0	0.5	0.0	0.5
4	16.0	14.5	15.5	7.5	6.5	7.0	1.0	0.0	0.5	0.5	0.5	0.5
5	16.5	15.0	16.0	7.0	6.0	6.5	1.0	0.0	0.5	0.5	0.0	0.5
6	16.5	15.5	16.0	6.0	5.5	6.0	0.5	0.0	0.5	0.5	0.0	0.5
7	17.0	15.0	16.5	5.5	5.5	5.5	1.5	0.5	1.0	0.5	0.0	0.5
8	17.0	16.5	17.0	5.5	4.5	5.0	0.5	0.5	0.5	0.5	0.5	0.5
9	17.0	14.5	16.5	4.5	3.5	4.0	0.5	0.5	0.5	0.5	0.5	0.5
10	14.5	12.5	13.0	4.5	3.5	4.0	0.5	0.5	0.5	0.5	0.0	0.5
11	12.5	11.0	11.5	4.5	3.5	4.0	1.0	0.0	0.5	0.5	0.5	0.5
12	11.5	10.5	11.0	4.0	3.5	4.0	1.0	0.5	0.5	0.5	0.5	0.5
13	12.0	10.5	11.5	3.5	3.0	3.5	1.0	0.5	0.5	0.5	0.5	0.5
14	12.0	11.0	11.5	3.5	2.5	3.0	1.0	0.5	0.5	0.5	0.5	0.5
15	11.5	10.5	11.0	3.0	2.5	3.0	1.0	0.5	0.5	0.5	0.5	0.5
16	11.5	11.0	11.5	3.5	2.5	3.0	1.0	0.0	0.5	0.5	0.0	0.5
17	11.0	10.0	10.5	3.5	2.5	3.0	1.5	0.0	1.0	1.0	0.5	0.5
18	10.0	9.0	9.5	3.5	2.5	3.0	1.0	0.5	1.0	0.5	0.5	0.5
19	9.5	8.5	9.0	4.0	2.5	3.5	1.0	0.0	0.5	0.5	0.5	0.5
20	9.0	8.5	9.0	4.0	3.0	3.5	1.5	0.0	0.5	0.5	0.5	0.5
21	10.0	9.0	9.5	3.5	3.0	3.5	1.5	0.5	0.5	0.5	0.5	0.5
22	9.5	8.5	9.0	3.5	2.5	3.0	1.0	0.0	0.5	0.5	0.5	0.5
23	8.5	7.5	8.0	3.0	2.5	3.0	1.0	0.0	0.5	0.5	0.5	0.5
24	8.0	8.0	8.0	2.5	2.0	2.5	1.0	0.5	0.5	0.5	0.0	0.5
25	9.0	6.0	8.5	2.5	1.5	2.5	0.5	0.5	0.5	0.5	0.5	0.5
26	9.0	8.5	9.0	3.0	1.5	2.5	0.5	0.0	0.5	0.5	0.5	0.5
27	8.5	6.5	7.5	4.0	3.0	3.5	0.5	0.5	0.5	0.5	0.0	0.5
28	7.0	5.5	6.0	5.0	4.0	4.5	1.0	0.0	0.5	0.5	0.5	0.5
29	6.5	6.0	6.0	5.0	3.5	4.5	1.0	0.5	0.5	0.5	0.5	0.5
30	7.0	6.0	6.5	3.5	1.5	2.5	1.0	0.5	0.5	0.5	0.5	0.5
31	8.0	6.5	7.5	---	---	---	1.0	0.5	0.5	0.5	0.0	0.5
MONTH	17.0	5.5	11.0	7.5	1.5	4.0	1.5	0.0	0.5	1.0	0.0	0.5

01434000 DELAWARE RIVER AT PORT JERVIS, NY--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

	FEBRUARY			MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	0.5	0.5	0.5	1.0	0.5	0.5	6.5	5.5	6.0	13.0	11.0	12.0
2	0.5	0.5	0.5	1.5	0.5	1.0	6.0	5.0	5.5	13.5	12.0	13.0
3	0.5	0.5	0.5	2.0	0.5	1.0	7.0	4.5	6.0	14.0	12.0	13.5
4	0.5	0.0	0.5	2.0	1.0	1.5	7.0	5.5	6.5	13.5	12.5	13.0
5	0.5	0.0	0.5	2.0	0.5	1.5	5.5	4.0	5.0	13.5	12.0	12.5
6	0.5	0.5	0.5	1.5	1.0	1.5	5.5	4.5	5.0	14.5	12.5	14.0
7	1.3	0.0	0.5	1.5	0.5	1.0	5.0	4.0	4.5	15.5	14.0	15.0
8	0.5	0.5	0.5	2.5	1.0	2.0	5.5	5.0	5.0	16.0	14.0	15.0
9	0.5	0.5	0.5	4.0	1.5	3.0	5.5	4.5	5.0	14.5	11.0	13.0
10	0.5	0.5	0.5	5.5	3.5	4.5	6.0	4.0	5.0	11.5	10.5	11.0
11	0.5	0.5	0.5	6.0	5.0	5.5	8.0	5.5	6.5	12.0	10.0	11.0
12	0.5	0.5	0.5	6.0	5.5	6.0	10.5	7.5	9.0	13.5	11.0	12.5
13	0.5	0.0	0.5	7.0	5.0	6.0	12.5	10.0	11.0	15.5	13.5	14.5
14	0.5	0.5	0.5	5.5	4.5	4.5	13.0	11.5	12.5	15.0	13.5	14.5
15	0.5	0.0	0.5	5.0	4.5	4.5	12.5	9.5	11.5	15.0	13.0	14.5
16	0.5	0.5	0.5	5.5	4.5	5.0	12.0	10.5	11.5	15.5	13.5	14.5
17	0.5	0.5	0.5	5.0	4.5	5.0	12.5	9.5	12.0	17.5	14.5	16.0
18	0.5	0.5	0.5	4.5	2.0	3.0	13.0	11.0	12.0	18.5	15.5	17.5
19	0.5	0.5	0.5	3.0	1.5	2.5	14.0	11.5	13.0	19.0	17.5	18.5
20	0.5	0.5	0.5	3.0	1.0	2.5	14.0	13.0	13.5	20.5	18.5	19.5
21	0.5	0.5	0.5	4.0	2.5	3.0	16.5	13.5	15.0	21.0	19.0	20.5
22	0.5	0.0	0.5	4.0	3.0	3.5	17.0	15.0	16.0	23.0	20.0	21.5
23	1.0	0.5	0.5	3.0	2.0	2.5	17.0	15.5	16.5	24.0	21.0	22.0
24	2.0	0.5	0.5	3.5	1.5	2.0	15.5	13.0	14.5	24.0	20.0	22.0
25	3.0	0.5	0.5	3.0	1.0	2.0	13.0	10.0	11.5	23.0	20.5	22.0
26	1.0	0.5	0.5	3.5	2.0	3.0	10.5	9.5	9.5	23.0	20.0	22.0
27	1.5	0.5	1.0	5.5	3.0	4.0	10.0	9.0	9.5	23.5	19.5	21.5
28	1.0	0.5	0.5	5.5	5.0	5.0	11.0	10.0	10.5	24.5	21.5	23.0
29	---	---	---	7.0	5.0	6.0	11.0	10.0	10.5	23.5	20.5	21.5
30	---	---	---	7.5	6.0	6.5	12.0	9.5	11.0	22.5	19.5	21.0
31	---	---	---	9.0	5.5	7.5	---	---	---	23.5	20.0	22.0
MONTH	3.0	0.0	0.5	8.0	0.5	3.5	17.0	4.0	9.5	24.5	10.0	17.0

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	22.5	20.5	21.5	24.5	21.0	22.5	23.0	21.5	22.0	24.0	22.0	23.0
2	23.5	20.0	22.0	24.0	21.0	22.5	24.0	21.0	22.5	25.0	22.5	24.0
3	22.5	20.0	21.0	24.0	21.0	23.0	23.0	21.0	22.0	25.5	23.0	24.0
4	21.5	19.0	20.5	24.5	22.5	24.0	23.5	21.0	22.5	24.5	22.5	23.5
5	22.0	19.5	21.0	25.0	23.0	24.0	24.5	21.5	23.0	24.0	22.5	23.5
6	21.0	17.5	19.5	25.0	22.5	23.5	25.0	23.0	24.5	24.0	22.5	23.0
7	19.5	17.5	18.5	23.5	22.0	22.5	25.5	23.5	25.0	23.5	21.5	22.5
8	18.0	16.5	17.5	23.5	22.0	23.0	26.0	24.0	25.0	23.0	20.5	22.0
9	17.0	15.5	16.0	24.5	22.5	23.5	26.0	24.0	25.0	22.5	20.5	21.5
10	16.5	14.5	15.5	25.0	22.5	24.0	24.5	22.5	23.5	22.5	20.5	21.5
11	17.5	15.0	16.5	24.5	22.5	23.5	25.5	23.0	24.0	21.5	20.0	20.5
12	18.5	16.0	17.5	23.0	21.0	22.0	25.0	23.5	24.5	20.0	19.0	19.5
13	20.0	17.5	19.0	25.5	22.0	24.0	24.5	23.0	23.5	20.0	18.5	19.0
14	20.5	19.0	20.0	26.5	22.5	24.5	23.5	22.5	23.0	20.0	18.5	19.0
15	21.5	19.0	20.5	25.5	22.5	24.0	24.5	22.0	23.5	19.5	18.0	19.0
16	23.0	20.0	21.5	26.5	22.0	24.5	23.0	22.0	22.5	19.5	18.0	18.5
17	22.5	21.0	22.0	28.0	23.5	26.0	22.5	21.0	21.5	20.5	18.0	19.0
18	23.5	21.0	22.5	28.0	24.5	25.5	22.5	20.0	21.5	19.5	18.5	19.0
19	25.0	22.0	23.5	27.0	24.5	26.0	22.0	19.5	21.0	20.5	18.5	19.5
20	25.0	22.5	23.5	26.0	24.0	25.0	22.0	19.5	20.5	20.0	19.0	19.5
21	24.5	21.0	22.0	26.5	24.0	25.0	21.5	19.5	20.5	19.0	17.0	18.0
22	21.0	19.0	20.0	26.5	24.0	25.0	22.0	20.0	21.0	17.0	15.5	16.5
23	22.0	18.5	20.5	25.0	22.5	24.0	22.0	20.0	21.0	17.0	16.0	16.5
24	23.0	20.0	21.5	26.0	23.5	25.0	21.5	20.5	21.0	16.5	15.5	16.0
25	22.0	20.0	21.0	25.5	23.0	24.0	21.5	19.0	20.5	15.5	13.5	14.5
26	23.5	20.0	21.5	23.5	21.5	22.5	22.0	19.0	20.5	14.0	13.0	13.5
27	24.5	21.5	23.0	23.0	20.5	22.0	22.0	20.0	21.0	14.5	13.5	14.0
28	24.0	21.5	22.5	23.0	20.5	22.0	24.0	20.0	22.5	15.5	14.0	15.0
29	23.0	21.0	22.0	23.5	21.0	22.5	25.5	23.0	24.5	15.0	14.5	15.0
30	25.0	20.5	22.5	23.0	21.5	22.0	25.0	23.5	24.0	15.5	14.5	15.0
31	---	---	---	23.0	20.5	22.0	23.5	21.0	22.5	---	---	---
MONTH	25.0	14.5	20.5	28.0	20.5	23.5	26.0	19.0	22.5	25.5	13.0	19.0

01438500 DELAWARE RIVER AT MONTAGUE, NJ

LOCATION.--Lat 41°18'33", long 74°47'44", Sussex County, Hydrologic Unit 02040104, on right bank 0.4 mi (0.6 km) upstream from toll bridge at Montague, 0.8 mi (1.3 km) downstream from Sawkill Creek, and at mile 246.3 (396.3 km).

DRAINAGE AREA.--3,480 mi² (9,013 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Water years 1936 to September 1939 (gage heights only, published as "at Milford, PA"). Water years 1939 to current year. Monthly discharge only for some periods, published in WSP 1302.

GAGE.--Water-stage recorder. Datum of gage is 369.93 ft (112.755 m) NGVD. Prior to Feb. 9, 1940, nonrecording gage on upstream side of left span of subsequently dismantled bridge at present site at datum 70 ft (21.3 m) lower.

REMARKS.--Discharge records excellent except those for December, January, and February, which are good. Diurnal fluctuations at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lake Wallenpaupack and Pepacton, Cannonsville, Swinging Bridge, Toronto, Cliff Lake, and Neversink Reservoirs (see Delaware Reservoirs).

AVERAGE DISCHARGE.--38 years, 5,912 ft³/s (167.4 m³/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 250,000 ft³/s (7,080 m³/s) Aug. 19, 1955 (gage height, 35.15 ft or 10.714 m), from rating curve extended above 90,000 ft³/s (2,550 m³/s) on basis of flood-routing study; minimum, 382 ft³/s (10.8 m³/s) Aug. 24, 1954, gage height, 3.83 ft (1.167 m); minimum daily, 412 ft³/s (11.7 m³/s) Aug. 23, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage during period 1903-77, 35.5 ft (10.82 m) Oct. 10, 1903, present datum, from floodmark.

EXTREMS FOR CURRENT YEAR.--Maximum discharge, 87,500 ft³/s (2,478 m³/s) Mar. 14, gage height, 20.53 ft (6.258 m); minimum daily, 900 ft³/s (25.5 m³/s) Feb. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2970	13000	2800	2100	1700	14000	34800	7690	1410	2070	1910	1910
2	2560	11200	2400	2000	1050	10500	26000	7000	1370	1870	2410	1660
3	2120	9760	2500	2400	900	9000	32600	7020	1340	1290	2340	1810
4	3210	9630	2600	2700	1100	8000	26400	5960	1400	1640	1980	1520
5	3210	9700	1700	2500	1600	20000	23300	7080	1570	1610	1880	1630
6	2740	9120	2300	2100	2200	23000	23400	11400	1620	1920	1610	1760
7	2210	8250	4800	2700	2400	17000	20500	9680	1610	2140	1660	2170
8	2300	7810	9000	2900	3000	12600	17300	7810	1480	1870	1860	1900
9	9320	7710	9720	2900	2800	10400	15000	7720	1640	1990	2430	1750
10	39500	6880	7640	2200	2300	10500	13100	9180	3160	1490	2050	1830
11	18400	6490	5900	3100	2300	12700	11800	8890	3000	1560	1850	1420
12	11500	6190	5200	3000	2200	14300	10300	8770	2230	1950	1750	1390
13	8930	5680	5100	3000	2200	21200	9260	8670	1610	2080	1570	1850
14	7900	5030	4800	2900	1750	76100	8420	8210	1840	2160	1680	1610
15	7740	4940	3800	2600	2400	50400	7780	7060	1680	2430	1650	1700
16	6250	4880	3500	1700	3200	32600	6450	6800	1650	1680	2080	2020
17	5300	4820	3700	2500	3200	23900	4810	5750	1700	2040	2100	2610
18	5140	4260	3300	3200	2500	18500	4720	5000	1870	1980	1680	4500
19	5040	3740	2700	2900	2100	16300	4590	5360	1990	3000	1700	2990
20	4630	3620	2800	2700	2000	13000	4340	5070	2010	2790	1930	3530
21	17700	3680	3000	2500	2000	11100	3640	4530	2770	3010	1520	9090
22	26300	3440	3800	2500	1800	12800	3330	3410	2480	2410	1630	8040
23	17100	3580	3500	2500	2000	18100	3410	3110	2190	1220	1950	5900
24	12900	3400	2500	1900	2000	15900	5560	3010	2040	1660	2190	4260
25	12800	3090	2300	2600	6000	13300	19000	3030	2190	1480	1980	12300
26	15300	2480	2200	2200	11000	11200	17500	2730	2040	1370	1950	29000
27	14600	2480	2200	1900	11000	9770	15200	1940	1580	1180	1190	32700
28	11900	2220	3100	2000	12000	10800	13600	1580	2130	1520	1340	17300
29	10400	2600	3200	1500	---	13900	11100	1380	2170	1730	1400	11400
30	9290	3350	2600	1100	---	30800	9240	1310	2030	1760	2230	8780
31	8840	---	2300	1250	---	40700	---	1320	---	1760	1800	---
TOTAL	308120	173030	116960	74050	90700	602370	406450	177470	57800	58660	57300	180330
MEAN	9939	5768	3773	2389	3239	19430	13550	5725	1927	1892	1848	6011
MAX	39500	13000	9720	3200	12000	76100	34800	11400	3160	3010	2430	32700
MIN	2120	2220	1700	1100	900	8000	3330	1310	1340	1180	1190	1390

```
CAL YR 1976  TOTAL   2460920   MEAN  6724   MAX  56000   MIN  1590
WTR YR 1977  TOTAL   2303240   MEAN  6310   MAX  76100   MIN   900
```

01439500 BUSH KILL AT SHOEMAKERS, PA

LOCATION.--Lat 41°05'17", long 75°02'17", Monroe County, Hydrologic Unit 02040104, on right bank 30 ft (9 m) downstream from highway bridge, 0.1 mi (0.2 km) downstream from Saw Creek, 0.7 mi (1.1 km) northwest of Shoemakers, and 2 mi (3.2 km) southwest of Bushkill.

DRAINAGE AREA.--117 mi² (303 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1908 to current year. Monthly discharge only for some periods, published in WSP 1302. Prior to October 1928, published as Bushkill Creek near Shoemakers; October 1928 to September 1952, published as Bushkill Creek at Shoemakers.

REVISED RECORDS.--WSP 756: Drainage area. WSP 1202: 1921, 1932(M), 1933, 1935-36, 1938(M), 1939-40, 1942, 1945, 1946(M), 1948(M). WSP 1302: 1909-15, 1920(M), 1922-29.

GAGE.--Water-stage recorder. Datum of gage is 421.13 ft (128.360 m) above mean sea level, unadjusted. Sept. 19, 1908 to Aug. 12, 1938, nonrecording gage, and Aug. 13, 1938 to June 20, 1956, water-stage recorder at site 50 ft (15 m) upstream at same datum.

REMARKS.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--69 years, 235 ft³/s (6.655 m³/s), 27.28 in/yr (693 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,400 ft³/s (663 m³/s) Aug. 19, 1955, gage height, 13.95 ft (4.252 m), from floodmarks, from rating curve extended above 2,600 ft³/s (73.6 m³/s) on basis of slope-area measurement of peak flow; minimum, 2.6 ft³/s (0.074 m³/s) Sept. 25, 26, 27, 1964, gage height, 0.72 ft (0.219 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,100 ft³/s (31.2 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 25	1330	*2,120	60.0	*4.43	1.350
Mar. 5	0430	1,980	56.1	4.29	1.308
Mar. 14	0730	1,750	49.6	4.03	1.228
Mar. 23	0030	1,940	54.9	4.25	1.295
Apr. 5	2100	1,330	37.7	3.55	1.082

Minimum discharge, 13 ft³/s (0.37 m³/s) Sept. 12, 13, 14, gage height, 1.01 ft (0.308 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	108	466	120	170	56	736	516	301	70	42	23	28
2	116	386	104	160	56	606	531	277	77	38	22	32
3	145	346	98	150	56	512	1040	263	70	35	29	26
4	160	346	95	140	56	760	868	246	62	32	39	22
5	130	331	92	130	56	1790	1150	301	58	32	33	23
6	118	316	90	120	56	1330	1180	291	56	31	31	19
7	110	291	539	110	55	1010	941	273	66	36	56	22
8	108	273	546	105	54	789	790	242	68	81	45	21
9	611	246	434	100	54	642	654	246	88	78	35	17
10	762	234	440	98	54	559	559	273	282	57	31	16
11	526	225	363	95	59	493	487	246	202	50	34	15
12	416	210	255	92	64	435	427	221	145	61	32	14
13	346	195	238	88	68	723	374	206	116	74	31	13
14	326	184	220	84	72	1630	330	188	103	60	31	14
15	277	177	210	81	73	1240	291	174	98	48	30	14
16	246	170	195	76	68	983	262	164	86	41	27	21
17	221	166	188	74	66	766	237	154	77	38	32	49
18	202	164	167	71	64	659	219	145	75	34	42	51
19	181	157	160	69	60	574	209	148	79	31	39	53
20	225	154	151	67	70	492	190	141	68	33	31	60
21	647	145	157	66	66	439	179	132	62	36	26	60
22	505	141	170	63	60	959	169	124	58	32	28	56
23	422	135	220	62	80	1600	173	118	53	26	28	54
24	380	132	180	61	332	1150	410	108	51	23	28	68
25	404	127	160	60	1360	893	553	81	53	24	25	352
26	512	121	150	59	822	754	486	81	54	35	23	466
27	447	124	200	58	712	676	499	75	51	32	20	447
28	386	124	260	57	911	660	434	73	47	25	19	306
29	346	141	230	57	---	647	380	68	49	22	19	230
30	316	138	200	56	---	634	336	70	45	22	18	181
31	447	---	190	56	---	593	---	70	---	22	20	---
TOTAL	10146	6365	6822	2735	5560	25734	14874	5500	2469	1231	927	2750
MEAN	327	212	220	88.2	199	830	496	177	82.3	39.7	29.9	91.7
MAX	762	466	546	170	1360	1790	1180	301	282	81	56	466
MIN	108	121	90	56	54	435	169	68	45	22	18	13
CFSM	2.80	1.81	1.88	.75	1.70	7.09	4.24	1.51	.70	.34	.26	.78
IN.	3.23	2.02	2.17	.87	1.77	8.18	4.73	1.75	.79	.39	.29	.87

CAL YR 1976 TOTAL 94105 MEAN 257 MAX 2360 MIN 28 CFSM 2.20 IN 29.92
WTR YR 1977 TOTAL 85113 MEAN 233 MAX 1790 MIN 13 CFSM 1.99 IN 27.06

01439500 BUSH KILL AT SHOEMAKERS, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--January 1976 to current year.

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, NOVEMBER 1976 TO AUGUST 1977

DATE	TIME	CODE FOR AGENCY COL-LECTING SAMPLE	INSTAN-TANEOUS DIS-CHARGE (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (JTU)	DIS-SOLVED OXYGEN (MG/L)	HARD-NESS (CA,MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)
NOV 09...	1515	9813	241	80	7.2	9.0	2	11.0	30	--	0
FEB 24...	1115	9813	255	40	5.5	.7	<1	--	10	0	0
AUG 22...	1400	9813	233	35	7.5	19.0	<1	11.5	10	--	0

DATE	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	TOTAL FILT-RABLE RESIDUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
NOV 09...	5.5	4.0	20	8.0	9.0	--	.48	.02	.06	.04	510
FEB 24...	4.0	<.5	12	5.0	5.0	50	.62	.04	.08	.05	60
AUG 22...	3.1	.5	22	5.0	4.0	34	.48	.02	.05	.06	70

01440090 DELAWARE RIVER NEAR EAST STROUDSBURG, PA (NEAR TOCKS ISLAND DAMSITE)

LOCATION.--Lat 41°02'40", long 75°01'42", Monroe County, Hydrologic Unit 02040104, water-quality recorder on right bank opposite Roxono Island, 0.1 mi (0.2 km) upstream from mouth of Vancampens Brook, and 4.4. mi (7.0 km) northeast of East Stroudsburg.

DRAINAGE AREA.--3,830 mi² (9,920 km²), approximately.

PERIOD OF RECORD.--October 1966 to May 1973, October 1973 to current year.

REMARKS.--Discharge records are obtained from 01440200 Delaware River below Tocks Island damsite near Delaware Water Gap, PA.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	FECAL COLIFORM, .7UM-MF (COL./100 ML)	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)
OCT											
06...	0900	3410	80	7.2	15.0	2	9.6	10	848	99	59
20...	1410	5470	60	6.8	9.0	1	13.6	<10	20	60	35
NOV											
04...	0800	11290	70	6.6	6.0	2	11.8	11	20	30	43
15...	1700	6240	90	7.4	4.5	2	11.8	<10	818	46	54
DEC											
01...	1615	3710	70	6.9	4.5	3	13.2	<10	81	82	41
13...	1700	6030	80	6.5	2.0	2	13.4	<10	88	88	61
28...	0900	3290	80	6.8	.5	5	11.2	<10	--	--	57
FEB											
09...	0845	7530	115	7.0	.0	2	12.4	<10	4	41	66
23...	1430	4640	100	6.9	.5	2	13.2	<10	1	0	62
MAR											
10...	0845	12000	65	6.5	4.0	3	12.6	<10	11	22	42
24...	1615	19100	65	6.8	2.0	3	13.0	<10	--	--	26
APR											
07...	1730	22900	60	6.3	6.0	3	12.5	<10	812	812	44
20...	1015	5680	80	6.9	15.0	1	11.3	<10	812	86	51
MAY											
03...	1300	9090	60	7.7	14.0	1	10.3	6	89	818	42
17...	1500	6710	55	8.1	18.0	2	10.8	5	3	81	40
31...	1730	1440	96	8.4	23.0	2	10.6	9	89	86	57
JUN											
14...	1600	1590	75	7.6	21.5	1	9.5	12	62	89	52
28...	1530	1780	87	7.8	26.0	1	9.0	11	F10	E6	55
JUL											
12...	1145	1760	78	7.2	25.0	1	7.8	20	--	47	51
27...	1615	1210	80	7.9	25.5	1	9.3	15	84	816	54
AUG											
09...	1430	3040	90	7.5	27.0	1	7.4	10	35	270	66
24...	1230	2500	89	7.6	23.0	1	8.6	10	31	39	54
SEP											
06...	1500	1440	75	7.1	25.5	0	8.0	9	28	60	54
20...	1615	3860	78	6.6	21.0	5	9.2	15	E60	330	52

01440090 DELAWARE RIVER AT EAST STROUDSBURG, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	S S- PENDED SOLIDS (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	CHLORO- PHYLL A (UG/L)	CHLORO- PHYLL B (UG/L)
OCT										
06...	2	.19	.02	.18	.20	.39	.05	3.7	9.78	8.04
20...	3	.27	.03	.17	.20	.47	.05	3.8	.000	.000
NOV										
04...	7	.30	.05	.15	.20	.50	.03	8.0	.000	.000
15...	1	.41	.09	.46	.55	.96	.03	4.3	.000	.000
DEC										
01...	3	.31	.01	.12	.13	.44	.02	5.7	.000	.000
13...	1	.43	.00	.00	.00	.43	.02	4.3	.000	.000
28...	3	.42	.01	.12	.13	.55	.01	4.7	.000	.000
FEB										
09...	22	.71	.07	.01	.08	.79	.03	3.5	.000	.000
23...	2	.63	.08	.30	.38	1.0	.01	5.2	.931	.000
MAR										
10...	10	.55	.06	.14	.20	.75	.03	4.0	.000	.000
24...	8	.40	.03	.30	.33	.73	.06	2.1	1.10	.183
APR										
07...	--	.41	.05	.25	.30	.71	.02	2.0	--	--
20...	--	.40	.05	.25	.30	.70	.08	1.8	--	--
MAY										
03...	--	.25	.01	.67	.68	.93	.01	5.6	2.59	.785
17...	14	.20	.02	.28	.30	.50	.01	8.0	1.16	.000
31...	--	.32	.12	.30	.42	.74	.03	5.9	13.2	1.99
JUN										
14...	--	.33	.05	.24	.29	.62	.02	5.3	4.54	3.19
28...	--	.26	.06	.34	.40	.66	.01	5.3	1.89	.426
JUL										
12...	--	.47	.09	.38	.47	.94	.01	5.0	.291	.000
27...	--	.29	.06	.15	.21	.50	.01	2.6	4.45	.064
AUG										
09...	--	.21	.11	.47	.58	.79	.03	4.3	1.59	.000
24...	16	.21	.03	.27	.30	.51	.01	5.7	.052	.000
SEP										
06...	1	.33	.02	.24	.26	.59	.02	2.5	--	--
20...	13	.47	.03	.30	.33	.80	.03	10	2.11	1.31

DATE	TIME	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)
DEC								
01...	1615	18	0	15	3.6	10	4.6	1
MAR								
10...	0845	17	0	14	8.6	7.5	5.3	7
JUN								
14...	1600	21	0	17	.8	11	4.5	22

01440200 DELAWARE RIVER BELOW TOCKS ISLAND DAMSITE, NEAR DELAWARE WATER GAP, PA

LOCATION.--Lat 41°00'42", long 75°05'09", Warren County, Hydrologic Unit 02040105, on left bank 40 ft (12 m) streamward from River Road, 1.0 mi (1.6 km) downstream from Tocks Island, 3.7 mi (6.0 km) northeast of Delaware Water Gap, PA, 4.0 mi (6.4 km) upstream from bridge on Interstate Highway 80, and at mile 216.1 (347.7 km).

DRAINAGE AREA.--3,850 mi^2 (9,970 km^2) approximately.

PERIOD OF RECORD.--May 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is 293.64 ft (89.501 m) NGVD.

REMARKS.--Discharge records good. Diurnal fluctuation at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lake Wallenpaupack, and by Pepacton, Cannonsville, Swinging Bridge, Toronto, Cliff Lake, and Neversink Reservoirs (see Delaware River Basin, reservoirs in) and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs (see Delaware River Basin, diversions).

AVERAGE DISCHARGE.--13 years, 6,399 ft^3/s (181.2 m^3/s), unadjusted.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 85,600 ft^3/s (2,420 m^3/s) Mar. 14, gage height, 20.86 ft (6.358 m); minimum daily, 1,200 ft^3/s (34.0 m^3/s) Feb. 3.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 103,000 ft^3/s (2,920 m^3/s) June 30, 1973, gage height, 23.82 ft (7.260 m); minimum daily, 580 ft^3/s (16.4 m^3/s) July 7, 8, 1965.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3200	9300	3040	2200	1700	18100	38900	9860	1930	2660	2190	2210
2	2980	12700	2530	2300	1500	14300	28900	8450	1850	2580	2660	2210
3	2010	10900	2710	2500	1200	11100	33200	9010	1900	1430	3170	2140
4	3110	10300	2550	29[illegible]	1400	10800	30400	7650	1500	1710	2580	1980
5	3610	10800	2010	3000	1500	24900	21900	7530	1850	1980	2420	1770
6	2750	9540	1960	2600	1800	29100	29000	11900	2060	2580	2190	1980
7	2600	8610	3850	2800	2400	20400	25300	11900	2160	1930	1590	2600
8	2270	7730	9250	2900	2700	14800	21700	9820	2110	2580	2270	2400
9	5610	7970	12600	2900	3000	12000	18300	8570	1880	2500	2890	2140
10	41300	7030	10500	2900	2700	10900	15100	10100	3430	2290	2710	2110
11	22700	6460	7730	2300	2500	12400	14300	10500	4550	1670	2370	1600
12	13600	6220	6220	3200	2400	14100	13000	10000	3540	2550	2320	1570
13	10400	5900	5650	3100	2300	17800	11300	10200	2660	2600	1750	1660
14	9010	5010	5610	3000	2100	67500	10500	9620	2270	2660	1500	1960
15	8650	4730	5190	2900	2600	64200	9800	8610	2580	2810	1930	1710
16	7370	4870	4550	2500	3000	39200	8670	7810	2270	2470	2550	2290
17	6060	4760	4060	1900	3500	28100	6590	7420	2270	2110	2320	2760
18	5440	4130	3920	2100	3000	21200	5960	6290	2450	2600	2400	4270
19	5720	3720	3380	3200	2600	18100	6240	6430	2500	3220	1850	4020
20	5050	3430	2780	2700	2300	14900	5680	6070	2630	3410	2450	3850
21	13700	3510	3460	2900	2100	12000	4870	6070	3220	3300	2010	6570
22	30400	3350	3950	2600	1900	13100	5080	4550	3280	3350	1770	10100
23	19800	3410	4090	2600	2100	24100	4270	3900	2760	1660	2160	7280
24	14400	3280	3510	2600	2700	20100	5610	3870	2660	1360	2730	5650
25	13300	3070	2600	2400	8000	15800	22300	3870	2840	1880	2470	6890
26	15900	2420	2340	2600	11000	13600	21200	3690	2600	1520	2450	29800
27	16100	2370	1930	2300	13000	11400	18000	3220	2400	1430	1800	38100
28	13200	2190	2290	2100	16000	11200	16300	2420	2370	1270	1620	23000
29	11500	2160	2680	2100	---	13500	13600	2110	2760	2160	1290	14600
30	10400	2990	2900	1300	---	26900	11800	1930	2680	2090	1470	11400
31	9800	---	2500	1400	---	40700	---	1880	---	2140	2040	---
TOTAL	331940	172860	132340	78800	103000	666300	477770	215250	75960	70500	67920	200620
MEAN	10710	5762	4269	2542	3679	21490	15930	6944	2532	2274	2191	6687
MAX	41300	12700	12600	3200	16000	67500	38900	11900	4550	3410	3170	38100
MIN	2010	2160	1930	1300	1200	10800	4270	1880	1500	1270	1290	1570

CAL YR 1976 TOTAL 2757840 MEAN 7535 MAX 75300 MIN 1500
WTR YR 1977 TOTAL 2593260 MEAN 7105 MAX 67500 MIN 1200

01440400 BRODHEAD CREEK NEAR ANALOMINK, PA

LOCATION.--Lat 41°05'05", long 75°12'54", Monroe County, Hydrologic Unit 02040104, on left bank 1.5 mi (2.4 km) upstream from Paradise Creek, 1.6 mi (2.6 km) southeast of Henryville, and 2.3 mi (3.7 km) north of Analomink.

DRAINAGE AREA.--65.9 mi² (170.7 km²).

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder. Datum of gage is 586.50 ft (178.765 m) above mean sea level. Prior to Dec. 12, 1957, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--20 years, 134 ft³/s (3.795 m³/s), 27.61 in/yr (701 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,900 ft³/s (365 m³/s) July 28, 1969, gage height, 11.82 ft (3.603 m), from rating curve extended above 1,400 ft³/s (40 m³/s) on basis of slope-area measurement of peak flow; minimum, 5.9 ft³/s (0.17 m³/s) Sept. 8, 1964; minimum gage height, 1.22 ft (0.372 m) Sept. 18, 19, 23, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,100 ft³/s (31.2 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Oct. 9	1600	1,300	36.8	4.90	1.494	Mar. 14	0330	1,760	49.8	5.47	1.667
Mar. 4	2330	*2,600	73.6	*6.34	1.932	Mar. 22	1830	1,940	54.9	5.68	1.731

Minimum discharge, 9.6 ft³/s (0.27 m³/s) Sept. 13, 16, gage height, 1.18 ft (0.360 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69	292	72	79	56	428	289	174	46	25	16	17
2	85	237	66	77	55	338	355	161	47	24	17	15
3	115	213	64	75	55	286	742	150	43	23	18	13
4	117	216	62	73	54	779	488	144	40	22	23	12
5	93	203	60	71	54	1550	785	186	40	22	19	11
6	82	188	60	70	53	881	690	167	39	22	16	14
7	78	177	492	69	53	607	496	148	43	24	20	13
8	75	165	431	68	52	424	420	130	39	35	18	11
9	660	150	283	67	52	355	348	146	67	30	15	11
10	579	142	218	65	52	321	296	163	161	24	15	11
11	386	134	191	65	52	292	260	146	98	23	16	11
12	260	126	174	64	51	265	229	128	69	28	15	11
13	211	119	159	63	51	726	203	119	55	30	15	10
14	201	113	170	62	51	1290	184	110	49	24	16	11
15	167	106	152	61	48	768	165	101	48	22	16	11
16	146	103	124	61	44	561	152	96	42	20	14	12
17	128	98	119	60	43	405	138	90	38	20	18	28
18	117	96	111	60	41	358	128	85	39	18	19	19
19	106	93	103	60	40	318	120	90	42	19	16	22
20	156	90	101	60	43	271	113	85	36	19	15	22
21	640	85	104	59	47	251	108	79	35	19	13	27
22	390	82	128	59	45	835	103	73	32	18	16	25
23	296	79	124	58	45	1070	108	69	30	17	16	24
24	257	75	108	58	119	616	376	65	28	16	14	37
25	274	73	92	58	716	455	431	60	29	16	14	240
26	372	72	82	58	471	379	318	56	31	17	13	289
27	292	72	130	58	439	351	296	51	28	15	12	218
28	245	72	161	58	584	358	254	47	27	14	12	134
29	218	83	88	57	---	372	216	45	28	14	15	96
30	198	79	85	57	---	390	193	48	26	13	14	75
31	324	---	82	56	---	344	---	47	---	13	15	---
TOTAL	7337	3833	4396	1966	3466	16644	9004	3259	1375	646	491	1450
MEAN	237	128	142	63.4	124	537	300	105	45.8	20.8	15.8	48.3
MAX	660	292	492	79	716	1550	785	186	161	35	23	289
MIN	69	72	60	56	40	251	103	45	26	13	12	10
CFSM	3.60	1.94	2.16	.96	1.88	8.15	4.55	1.59	.70	.32	.24	.73
IN.	4.14	2.16	2.48	1.11	1.96	9.40	5.08	1.84	.78	.36	.28	.82

CAL YR 1976 TOTAL 61600 MEAN 168 MAX 2330 MIN 21 CFSM 2.55 IN 34.77
WTR YR 1977 TOTAL 53867 MEAN 148 MAX 1550 MIN 10 CFSM 2.25 IN 30.41

01442500 BRODHEAD CREEK AT MINISINK HILLS, PA

LOCATION.--Lat 40°59'55", long 75°08'35", Monroe County, Hydrologic Unit 02040104, on left bank at Minisink Hills, 500 ft (150 m) upstream from Marshall Creek, 1,500 ft (460 m) downstream from Coates Paper Box Co., 0.8 mi (1.3 km) upstream from mouth, and 3 mi (4.8 km) southeast of East Stroudsburg. Water-quality sampling site 500 ft (150 m) upstream.

DRAINAGE AREA.--259 mi^2 (671 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1950 to current year.

REVISED RECORDS.--WSP 1232: 1951(P).

GAGE.--Nonrecording gage and water-stage recorder. Datum of gage is 301.84 ft (92.001 m) above mean sea level. Prior to Aug. 19, 1955, water-stage recorder, and Aug. 23 to Nov. 24, 1955, nonrecording gages at site about 1,300 ft (400 m) upstream at datum 2.19 ft (0.668 m) higher. Nov. 25, 1955 to July 24, 1956, nonrecording gage at site 40 ft (12 m) upstream at present datum.

REMARKS.--Records good except those for periods of no gage-height record, Dec. 21 to Feb. 10, and winter periods, which are fair.

AVERAGE DISCHARGE.--26 years (1951-77), 555 ft^3/s (15.72 m^3/s), 29.10 in/yr (739 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 68,800 ft^3/s (1,950 m^3/s) Aug. 19, 1955, gage height, 29.9 ft (9.11 m), site and datum then in use, 27.0 ft (8.23 m), present site and datum, from floodmarks, from rating curve extended above 4,600 ft^3/s (130 m^3/s) on basis of computation of flow over dam at gage height 14.43 ft (4.398 m) and slope-area measurement at peak flow, site and datum then in use; minimum, 29 ft^3/s (0.82 m^3/s) Sept. 27, 1964, gage height, 1.12 ft (0.341 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,300 ft^3/s (122 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Oct. 9	1630	4,720	134	5.55	1.692	Mar. 14	2000	*10,900	308	*8.62	2.62
Feb. 25	0200	5,250	149	5.85	1.783	Mar. 22	2030	7,520	213	7.03	2.143
Mar. 5	0115	8,470	240	7.50	2.286						

Minimum discharge, 72 ft^3/s (2.04 m^3/s) Sept. 5, 6, gage height, 1.30 ft (0.396 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	218	1160	241	290	160	1450	918	611	196	129	88	88
2	284	966	230	280	160	1140	1130	564	207	127	96	88
3	473	902	230	280	160	954	2380	551	190	122	98	84
4	538	911	222	270	160	2500	1580	525	176	117	129	77
5	406	833	237	260	160	5600	2830	675	170	114	103	72
6	347	759	222	260	150	3090	2660	604	179	119	105	88
7	326	675	1840	250	150	2130	1990	544	204	143	112	94
8	302	639	1510	250	150	1550	1670	466	186	211	112	82
9	2600	577	1000	240	150	1330	1330	564	296	163	98	77
10	2340	564	791	240	150	1140	1170	590	720	135	96	77
11	1440	532	705	240	150	1000	1030	525	356	129	100	75
12	1060	499	639	230	150	892	927	492	266	135	100	72
13	890	473	632	230	150	2260	815	454	237	170	98	70
14	860	455	512	220	150	7720	728	406	207	145	103	70
15	720	436	492	220	150	5050	660	384	204	132	100	70
16	630	418	460	210	150	1880	604	367	190	114	90	78
17	530	389	442	210	150	1390	551	356	179	114	116	186
18	480	384	412	200	150	1260	499	340	190	112	129	117
19	450	357	389	200	160	1160	473	350	266	105	105	114
20	1220	347	372	200	170	1010	424	350	222	110	88	129
21	2600	326	400	190	176	918	394	335	249	107	84	135
22	1370	311	480	190	148	3070	367	320	196	107	88	117
23	1020	302	450	190	190	4700	372	287	176	96	94	114
24	938	288	400	180	454	2760	1010	279	167	90	86	186
25	1100	279	350	180	3430	1940	1320	257	157	90	86	1170
26	1490	275	310	170	1880	1510	963	245	182	98	82	1130
27	1060	262	500	170	1640	1310	981	230	160	88	78	776
28	975	266	590	170	2090	1240	866	218	157	82	80	512
29	824	336	330	170	---	1190	735	210	148	80	80	395
30	760	306	310	170	---	1160	660	218	135	82	78	326
31	1260	---	300	160	---	1050	---	207	---	80	82	---
TOTAL	29511	15227	15998	6720	13088	65354	32037	12524	6568	3646	2984	6669
MEAN	952	508	516	217	467	2108	1068	404	219	118	96.3	222
MAX	2600	1160	1840	290	3430	7720	2830	675	720	211	129	1170
MIN	218	262	222	160	148	892	367	207	135	80	78	70
CFSM	3.68	1.96	1.99	.84	1.80	8.14	4.12	1.56	.85	.46	.37	.86
IN.	4.24	2.19	2.30	.97	1.88	9.39	4.60	1.80	.94	.52	.43	.96

CAL YR 1976 TOTAL 224585 MEAN 614 MAX 8780 MIN 98 CFSM 2.37 IN 32.25
WTR YR 1977 TOTAL 210326 MEAN 576 MAX 7720 MIN 70 CFSM 2.22 IN 30.21

01442500 BRODHEAD CREEK AT MINISINK HILLS, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--January 1976 to current year.

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, NOVEMBER 1976 TO AUGUST 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA,MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)
NOV 09...	1515	9813	564	80	7.0	9.0	2	11.0	30	--	0
FEB 24...	1150	9813	230	140	6.5	2.0	1	--	35	0	0
AUG 22...	1305	9813	86	135	7.5	21.0	2	11.7	40	--	0

DATE	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
NOV 09...	8.0	2.5	22	8.0	9.0	--	.48	.02	.06	.04	660
FEB 24...	12	1.0	26	5.0	20	92	1.0	.05	.25	.12	130
AUG 22...	8.0	5.0	46	14	14	90	.88	.04	.05	.14	110

01446500 DELAWARE RIVER AT BELVIDERE, NJ

LOCATION.--Lat 40°49'36", long 75°05'02", Warren County, Hydrologic Unit 02040105, on left bank at Belvidere, 800 ft (240 m) downstream from Pequest River, and at mile 197.7 (318.1 km).

DRAINAGE AREA.--4,535 mi^2 (11,746 km^2).

PERIOD OF RECORD.--October 1922 to current year.

REVISED DISCHARGE RECORDS.--WSP 781: 1933(M). WSP 951: 1940-41, Drainage area. WSP 1432: 1923, 1924(M).

GAGE.--Water-stage recorder. Datum of gage is 226.43 ft (69.016 m) NGVD. Prior to Jan. 1, 1929, nonrecording gage at site 200 ft (61 m) upstream at same datum.

REMARKS.--Discharge records excellent. Diurnal fluctuations at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lake Wallenpaupack, and by Pepacton, Cannonsville, Swinging Bridge, Toronto, Cliff Lake, and Neversink Reservoirs (see Delaware River basin, reservoirs in) *and smaller reservoirs.* Diversion from Pepacton, Cannonsville, and Neversink Reservoirs

AVERAGE DISCHARGE.--55 years, 7,913 ft^3/s (224.1 m^3/s), unadjusted.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 103,000 ft^3/s (2,917 m^3/s) Mar. 14, gage height, 18.90 ft (5.578 m); minimum, 1,360 ft^3/s (38.5 m^3/s) Jan. 31, gage height, 2.80 ft (0.853 m).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 273,000 ft^3/s (7,730 m^3/s) Aug. 19, 1955 (gage height, 30.21 ft or 9.208 m, from highwater mark in gage house), from rating curve extended above 170,000 ft^3/s (4,810 m^3/s) on basis of flood-routing study; minimum, 609 ft^3/s (17.2 m^3/s) Sept. 28, 29, 1943, gage height, 2.11 ft (0.643 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 10, 1903, reached a stage of 28.6 ft (8.72 m), from floodmark, discharge, 220,000 ft^3/s (6,230 m^3/s) from rating curve extended above 170,000 ft^3/s (4,810 m^3/s).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4060	14000	3550	2690	1680	21200	44800	11800	2150	2640	2130	2130
2	3940	16400	3100	2820	2240	18100	34200	10400	2280	2550	2390	2240
3	3490	14200	2980	2670	1780	14800	38700	10700	2170	2190	3060	2020
4	4210	13000	2580	3260	1720	15800	37300	9440	2050	1820	2660	2050
5	4810	13000	2760	3520	1780	34100	33100	9480	2130	2080	2400	1910
6	3940	13000	9680	3140	2120	38100	35000	13100	2280	2260	2240	1940
7	3670	12200	12700	2690	2470	27600	30000	14000	2420	2260	2120	2210
8	3160	11200	12700	3100	3000	20600	25600	12100	2350	2880	2210	2390
9	6520	10600	11600	3340	3670	16600	21700	10600	2370	2550	2550	2170
10	38500	9920	10600	3100	3380	15000	18800	11800	4060	2510	2690	2030
11	32100	9120	9160	2600	2880	15800	16800	12300	5260	1970	2390	2100
12	18100	8760	8080	3550	3020	17600	15400	11700	4120	2300	2260	1720
13	13700	8360	6400	3380	3100	22100	13900	11700	3060	2580	2100	1690
14	11800	7360	6400	3400	3260	75600	12800	11200	2480	2640	1970	2100
15	10800	6880	6200	3700	2960	80000	11900	10200	2710	2670	2080	1920
16	10100	7000	6160	3160	3140	49000	10900	9240	2460	2710	2170	2100
17	8320	6600	6000	2280	3910	35200	8920	8840	2390	2130	2390	2760
18	7280	6280	5140	2670	3850	25000	7640	7480	2400	2580	2570	3670
19	7320	5800	4570	4090	3300	22000	7880	7520	2710	2710	2080	4570
20	6640	5230	4900	3460	2880	18500	7200	7080	2800	3320	2190	3670
21	10600	5020	4150	3320	2760	15500	6480	7040	3120	3140	2170	4990
22	30900	5020	4360	3040	2620	19000	5770	5320	3360	3360	1950	11200
23	26400	4930	4570	3000	2690	35000	5320	4600	2880	2390	2060	8040
24	18600	4930	3760	2960	3460	29000	7720	4450	2730	1610	2460	6280
25	15700	4090	3040	2580	13300	22800	16700	4180	2820	2000	2420	7560
26	17200	3400	3180	3160	15900	19400	23400	4030	2920	1840	2330	28100
27	19400	3340	2690	2820	19500	16300	20400	3520	2670	1700	2130	38300
28	17100	3280	3060	2510	20200	15600	18500	2710	2220	1520	1550	25000
29	14700	3970	3320	2490	---	17700	15600	2400	2800	1890	1660	15400
30	13400	4420	3160	1970	---	28600	13800	2220	2750	2080	1890	12000
31	12600	---	2880	1470	---	45200	---	2170	---	2120	2350	---
TOTAL	399060	241310	173430	91940	136770	846800	566230	253320	82920	73000	69620	204160
MEAN	12870	8044	5595	2966	4885	27320	18870	8172	2764	2355	2246	6805
MAX	38500	16400	12700	4090	20200	80000	44800	14000	5260	3360	3060	38300
MIN	3160	3280	2580	1470	1680	14800	5320	2170	2050	1520	1550	1690

CAL YR 1976 TOTAL 3297620 MEAN 9010 MAX 79000 MIN 2040
WTR YR 1977 TOTAL 3138560 MEAN 8599 MAX 80000 MIN 1470

01446550 DELAWARE RIVER NEAR MARTINS CREEK, PA (ROXBURG, NJ)

LOCATION.--Lat 40°47'20", long 75°06'59", Northampton County, at Pennsylvania Railroad crossing 900 ft (274 m) upstream from Oughoughton Creek, 4.7 mi (7.5 km) east of Martins Creek.

DRAINAGE AREA.--4,546 mi² (11,774 km²), approximately.

PERIOD OF RECORD.--July 1969 to current year.

REMARKS.--Operated as part of the USGS-EPA surveillance network. Records of discharge are given for 01446500 Delaware River at Belvidere, NJ.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	FECAL COLIFORM .7UM-MF (COL./100 ML)	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)
OCT											
05...	1415	4580	130	7.4	17.5	1	9.9	10	65	58	71
20...	1130	5970	105	6.7	9.0	4	15.0	<10	16	100	56
NOV											
03...	1400	13210	70	7.1	7.0	3	12.6	10	60	90	60
16...	0900	6280	--	7.5	5.0	2	10.8	<10	36	140	104
DEC											
01...	1315	4260	105	7.7	4.0	4	14.0	<10	85	B14	57
14...	0900	7330	100	6.8	1.0	2	13.0	[illegible]	44	77	63
27...	1600	2850	--	7.4	3.0	7	11.8	<10	--	--	71
JAN											
11...	1530	2490	120	7.0	3.0	1	13.5	<10	45	90	66
26...	1230	3100	120	7.1	3.0	2	13.6	<10	88	23	63
FEB											
08...	1500	3020	160	7.3	3.0	2	13.4	<10	10	21	66
23...	1120	2480	155	7.7	5.0	2	14.0	<10	2	70	80
MAR											
09...	1500	15600	85	6.3	5.5	2	12.8	<10	30	22	53
25...	1000	23900	95	6.6	2.5	3	13.6	10	--	--	36
APR											
07...	1445	29100	110	6.8	7.5	3	13.5	11	27	36	59
20...	1245	7720	105	7.3	18.0	1	10.4	<10	B19	76	161
MAY											
03...	1000	11800	80	7.9	18.0	2	10.8	7	B16	60	56
17...	1130	8500	70	7.6	22.0	1	10.0	5	15	89	50
31...	1600	2150	140	8.4	25.5	2	9.9	11	36	B14	80
JUN											
14...	1400	2420	130	7.9	25.0	1	8.1	14	94	B10	70
28...	1330	2120	127	7.9	27.5	1	8.4	12	84	39	80
JUL											
12...	1400	2600	130	7.3	28.0	1	7.6	5	73	22	76
27...	1400	1660	120	8.7	28.0	1	8.6	5	24	52	95
AUG											
09...	1230	2260	140	7.4	29.5	1	6.9	10	460	800	70
24...	1000	2220	120	8.0	25.0	1	7.8	10	21	600	63
SEP											
06...	1315	2030	120	7.4	28.5	1	7.6	15	F50	1400	66
20...	1445	3820	104	7.3	26.0	1	7.8	15	94	370	60

01446550 DELAWARE RIVER NEAR MARTINS CREEK, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	SUS-PENDED SOLIDS (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL ORGANIC NITRO-GEN (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	CHLORO-PHYLL A (UG/L)	CHLORO-PHYLL B (UG/L)
OCT										
05...	2	.22	.03	.22	.25	.47	.04	3.9	.000	.000
29...	0	.35	.06	.09	.15	.50	.05	4.9	.885	.000
NOV										
03...	16	.29	.03	.27	.30	.59	.03	7.9	1.39	.477
16...	1	3.4	.03	.20	.23	3.6	.03	5.4	.000	.000
DEC										
01...	3	.34	.01	.12	.13	.47	.02	3.9	.000	.000
14...	1	.49	.00	.15	.15	.64	.03	4.6	.000	.000
27...	5	.40	.01	.22	.23	.63	.02	6.0	.000	.000
JAN										
11...	1	.42	.02	.22	.24	.66	.03	2.8	1.24	.000
26...	2	.39	.01	.05	.06	1.3	.03	4.9	2.68	.000
FEB										
08...	2	.56	.04	.18	.22	.78	.01	3.9	3.20	.000
23...	2	.59	.03	.49	.52	1.1	.01	7.4	8.01	5.36
MAR										
09...	16	.56	.28	.02	.30	.86	.04	3.5	--	--
25...	10	.44	.02	.30	.32	.76	.04	1.8	--	--
APR										
07...	--	.41	.06	.24	.30	.71	.02	3.2	--	--
20...	--	.46	.05	.15	.20	.66	.08	2.8	--	--
MAY										
03...	--	.27	.03	.27	.30	.57	.01	4.9	4.14	2.66
17...	9	.19	.04	.25	.29	.48	.01	8.3	--	--
31...	--	.39	.12	.40	.52	.91	.03	5.3	2.39	.000
JUN										
14...	--	.40	.05	.34	.39	.79	.04	4.2	.000	.000
28...	--	.34	.07	.36	.43	.77	.01	4.9	.768	.662
JUL										
12...	--	.44	.07	.51	.58	1.0	.02	3.2	1.25	1.24
27...	--	.25	.04	.13	.17	.42	.02	4.1	.000	.000
AUG										
09...	--	.35	.16	.59	.75	1.1	.07	5.1	--	--
24...	3	.21	.03	.10	.13	.34	.02	4.9	1.14	.338
SEP										
06...	3	.31	.02	.30	.32	.63	.04	6.9	2.44	.245
20...	5	.34	.03	.34	.37	.71	.03	12	.155	.000

DATE	TIME	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)
DEC								
01...	1315	38	0	31	1.2	12	5.7	0
MAR								
09...	1500	18	0	15	14	8.8	6.3	14
JUN								
14...	1450	30	0	25	.6	15	7.2	0

MARTINS CREEK BASIN

01446600 MARTINS CREEK NEAR EAST BANGOR, PA

LOCATION.--Lat 40°54'00", long 75°12'08", Northampton County, Hydrologic Unit 02040105, at right downstream end of bridge on township road, 100 ft (30 m) downstream from confluence of East Fork and West Fork, 1.8 mi (2.9 km) northwest of East Bangor.

DRAINAGE AREA.--10.4 mi² (26.9 km²).

PERIOD OF RECORD.--August 1961 to current year.

REVISED RECORDS.--WDR PA-67: 1962, 1964(M), 1965, 1966(M). WDR PA-70: 1969(m).

GAGE.--Water-stage recorder. Datum of gage is 663.92 ft (202.363 m) above mean sea level.

REMARKS.--Records good except those for winter periods, which are fair. Diversion above station for irrigation.

AVERAGE DISCHARGE.--16 years, 16.4 ft³/s (0.464 m³/s), 21.41 in/yr (544 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,620 ft³/s (45.9 m³/s) Apr. 2, 1970, gage height, 3.89 ft (1.186 m), from rating curve extended above 210 ft³/s (5.9 m³/s) on basis of contracted-opening and flow over embankment measurements at gage height 3.87 ft (1.180 m); no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 135 ft³/s (3.82 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Oct. 9	1545	193	5.47	2.90	0.884	Mar. 14	0045	348	9.86	3.18	0.969
Dec. 7	1845	196	5.55	2.93	0.893	Mar. 22	2230	483	13.7	3.36	1.024
Feb. 25	1045	*842	23.8	*3.61	1.100	Apr. 5	2145	164	4.64	2.80	0.853
Mar. 4	2300	483	13.7	3.33	1.015						

Minimum discharge, 0.28 ft³/s (0.008 m³/s) Sept. 12, gage height, 1.33 ft (0.405 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.3	53	6.3	4.1	2.2	32	14	9.2	1.8	1.6	.48	.52
2	10	26	4.5	4.0	2.2	20	25	8.2	2.2	1.4	.44	.52
3	15	20	4.5	3.8	2.2	15	95	7.2	1.6	1.4	.65	.48
4	17	20	4.0	3.7	2.2	151	39	7.7	1.5	1.4	.83	.44
5	9.2	20	3.7	3.7	2.1	281	109	24	1.2	1.2	.65	.48
6	5.9	19	4.0	3.6	2.1	74	107	20	1.5	1.4	.56	.48
7	4.8	15	91	3.5	2.1	39	45	20	2.3	2.0	1.1	.44
8	6.7	13	97	3.4	2.1	27	33	12	1.7	5.5	.76	.44
9	151	11	56	3.3	2.0	22	25	12	7.7	2.8	.56	.40
10	82	9.7	13	3.3	2.0	19	21	12	18	1.9	.52	.40
11	27	9.7	13	3.2	2.2	16	19	7.7	8.7	1.6	.52	.32
12	15	8.7	13	3.1	2.3	15	17	5.9	3.0	3.0	.40	.32
13	12	8.7	14	3.0	2.5	113	15	5.1	2.2	8.2	.52	.32
14	12	8.2	8.7	3.0	2.8	247	13	4.2	1.6	2.5	.56	.40
15	10	7.7	5.9	2.9	2.9	77	12	3.5	1.7	1.2	.44	.36
16	8.7	6.7	6.3	2.8	2.7	44	10	3.0	1.4	.83	.40	.50
17	8.2	6.7	7.2	2.8	2.4	32	9.2	2.8	1.3	.70	1.6	5.0
18	7.7	6.7	7.2	2.7	2.2	29	8.7	3.0	1.5	.65	1.1	1.5
19	6.7	6.7	6.3	2.7	2.2	37	8.7	3.7	1.7	.60	.60	2.0
20	33	6.3	6.3	2.6	3.9	34	8.7	3.2	1.9	1.1	.48	3.0
21	91	6.3	13	2.6	3.3	32	8.7	2.8	4.0	.83	.56	2.0
22	38	5.9	8.0	2.6	2.7	184	8.2	2.6	2.5	.83	1.4	1.3
23	20	5.1	5.8	2.5	3.5	261	11	2.3	1.9	.60	.77	1.0
24	20	4.5	4.8	2.5	39	69	34	2.2	1.4	1.2	.65	2.6
25	30	4.2	4.5	2.4	333	39	37	2.0	3.5	.83	.56	4.9
26	38	4.5	4.8	2.4	93	30	30	2.2	4.5	.60	.48	14
27	26	5.1	4.7	2.3	53	24	41	1.7	2.5	.52	.44	8.7
28	18	5.5	4.6	2.3	60	22	23	1.6	2.3	.48	.44	6.6
29	15	9.2	4.4	2.3	---	20	14	2.2	3.0	.48	.44	4.4
30	14	10	4.3	2.3	---	18	11	2.2	1.9	.52	.40	3.5
31	74	---	4.2	2.2	---	16	---	1.9	---	.52	.44	---
TOTAL	832.2	343.1	433.0	91.6	634.8	2039	852.2	198.1	92.0	48.39	19.75	67.32
MEAN	26.8	11.4	14.0	2.95	22.7	65.8	28.4	6.39	3.07	1.56	.64	2.24
MAX	151	53	97	4.1	333	281	109	24	18	8.2	1.6	14
MIN	4.8	4.2	3.7	2.2	2.0	15	8.2	1.6	1.2	.48	.40	.32
CFSM	2.58	1.10	1.35	.28	2.18	6.33	2.73	.61	.30	.15	.06	.22
IN.	2.98	1.23	1.55	.33	2.27	7.29	3.05	.71	.33	.17	.07	.24

CAL YR 1976 TOTAL 7076.54 MEAN 19.3 MAX 880 MIN .91 CFSM 1.86 IN 25.31
WTR YR 1977 TOTAL 5651.46 MEAN 15.5 MAX 333 MIN .32 CFSM 1.49 IN 20.21

01446700 DELAWARE RIVER AT EASTON, PA

LOCATION.--Lat 40°42'43", long 75°11'48", Northampton County, Hydrologic Unit 02040105, on right bank 200 ft (61 m) upstream from city of Easton pumping station, 1.2 mi (1.9 km) upstream from Bushkill Creek at Easton.

DRAINAGE AREA.--4,636 mi^2 (12,007 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 157.84 ft (48.110 m) above mean sea level.

REMARKS.--Records good. Diurnal fluctuation at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lake Wallenpaupack (see p. 32) and by Cannonsville, Pepacton, Swinging Bridge, Toronto, Cliff Lake, and Neversink Reservoirs about 100 mi (161 km) upstream (see New York Annual Report) and smaller reservoirs. Diversion from Cannonsville, Pepacton, and Neversink Reservoirs (see New York Annual Report).

AVERAGE DISCHARGE.--10 years, 9,016 ft^3/s (255.3 m^3/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 100,000 ft^3/s (2,830 m^3/s) Dec. 22, 1973; minimum, 1,640 ft^3/s (46.4 m^3/s) Aug. 16, 1971; minimum gage height, 3.68 ft (1.122 m) Jan. 31, Feb. 1, July 29, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 94,700 ft^3/s (2,680 m^3/s) Mar. 14, gage height, 24.95 ft (7.605 m); minimum, 1,690 ft^3/s (47.9 m^3/s) Jan. 31, Feb. 1, July 29, gage height, 3.68 ft (1.122 m); minimum daily, 1,820 ft^3/s (51.5 m^3/s) Jan. 31, Feb. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4340	15300	4500	2600	1820	21800	44300	12400	2530	2950	2380	2600
2	4200	16700	4200	2800	2270	19200	35400	10900	2650	2960	2570	2500
3	3980	14100	4000	3200	2150	15400	38300	9920	2560	2800	3280	2600
4	4260	12900	3000	3600	1970	16700	38800	9030	2540	2120	3150	2400
5	4860	13100	3000	3800	1930	36200	35000	8960	2450	2480	2740	2200
6	4420	12800	2800	3630	2210	39700	36900	12800	2730	2480	2620	2270
7	4000	11700	3000	3110	2700	29700	32500	14200	2850	2850	2510	2320
8	3540	10700	15000	3070	3110	22500	27800	11900	2860	3140	2380	2790
9	6370	10700	13000	3350	3790	18200	23600	10300	2880	2950	2740	2470
10	36500	9990	11000	3430	3760	16000	20600	11000	3310	2930	3100	2330
11	38000	9190	9000	2730	3100	16700	18400	12000	3350	2440	2790	2390
12	26200	8840	7800	3450	3210	18500	16800	11400	3330	2390	2560	1990
13	18200	8200	7000	3430	3300	22700	14800	11400	3360	2890	2530	2000
14	12800	7700	6000	3620	3550	67600	13500	11000	3150	2950	2340	2380
15	10600	7200	5400	4020	3350	77600	12300	10200	3050	2940	2260	2210
16	9670	6800	5200	3530	3340	49100	11300	9160	2890	3140	2390	2160
17	8020	6400	4900	2490	3930	36600	9550	8810	2720	2490	2780	2910
18	7170	5900	4700	2350	4100	28800	8260	7390	2730	2750	2840	3590
19	7200	5500	4500	3670	3630	24600	8230	7240	2940	2770	2520	4980
20	6680	5330	4100	3580	3190	21500	7780	6940	3040	3750	2370	3900
21	11400	5110	3800	3620	2990	17600	7280	6000	3150	3500	2640	4460
22	32500	5020	4000	3320	2890	20500	6560	5500	3150	3710	2360	11000
23	25200	4750	3300	3190	2860	40400	6110	5000	3040	3060	2280	8090
24	18500	4620	3700	3100	4010	32100	7590	4500	3000	2010	2650	6630
25	16100	4430	3300	2080	13900	25500	15400	4300	3020	2160	3000	6990
26	18300	4180	2600	3350	16400	21400	25100	4000	3130	2260	2800	25100
27	20100	3960	2900	3110	19900	18000	22200	3500	3040	2030	2500	36700
28	17200	3860	2700	2710	20800	16900	20200	2950	2580	1890	2000	27900
29	14700	3740	2400	2690	---	18800	17200	2800	3040	2000	2000	16800
30	13200	3900	2700	2330	---	27600	14700	2590	3020	2360	2500	12200
31	13000	---	2500	1820	---	43400	---	2510	---	2390	3000	---
TOTAL	421210	242620	156000	97580	144160	881300	596460	249800	88090	83540	80580	208860
MEAN	13590	8087	5032	3148	5149	28430	19880	8058	2936	2695	2599	6962
MAX	38000	16700	15000	4020	20800	77600	44300	14200	3360	3750	3280	36700
MIN	3540	3740	2400	1820	1820	15400	6110	2510	2450	1890	2000	1990

CAL YR 1976 TOTAL 3463700 MEAN 9464 MAX 75700 MIN 2400
WTR YR 1977 TOTAL 3250200 MEAN 8905 MAX 77600 MIN 1820

01446700 DELAWARE RIVER AT EASTON, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1947 to September 1951, October 1957 to September 1958, October 1963 to September 1964, November 1967 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1967 to current year.
pH: November 1967 to current year.
WATER TEMPERATURES: October 1947 to September 1949, October 1957 to September 1958, October 1963 to September 1964, November 1967 to current year.
DISSOLVED OXYGEN: November 1967 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 499 micromhos Nov. 26, 1970; minimum, 40 micromhos Apr. 6, 1970.
pH: Maximum, 9.8 May 16, 1970; minimum, 5.7 May 24, 1970.
WATER TEMPERATURES: Maximum, 30.0°C July 18, 1968, July 28-29, 1970; minimum, freezing point on many days during winter periods.
DISSOLVED OXYGEN: Maximum, 18.1 mg/L Jan. 21, 1975; minimum, 4.8 mg/L July 9, 1975.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	132	127	130	126	107	115	164	145	154	154	137	144
2	138	131	135	182	126	156	158	153	155	149	137	144
3	146	128	140	221	183	207	176	156	166	---	---	---
4	151	143	146	245	208	221	168	159	163	154	142	149
5	147	132	140	255	168	203	173	162	170	141	132	137
6	141	133	136	188	168	178	182	172	177	143	132	138
7	138	134	136	196	186	191	198	153	176	148	140	144
8	147	135	141	235	146	186	236	173	198	155	134	145
9	167	142	155	167	148	158	279	201	221	147	132	139
10	---	---	---	175	155	162	229	185	208	145	127	136
11	---	---	---	167	155	163	217	193	200	161	138	149
12	---	---	---	161	151	157	204	173	189	151	130	142
13	---	---	---	176	153	160	---	---	---	152	126	139
14	---	---	---	163	153	159	123	114	117	147	127	135
15	---	---	---	165	157	162	126	114	120	138	122	128
16	---	---	---	170	155	161	127	116	121	144	128	136
17	---	---	---	165	154	161	126	120	123	356	144	172
18	---	---	---	167	155	161	125	117	120	172	149	161
19	---	---	---	171	163	166	129	121	125	151	130	141
20	145	126	130	175	168	171	130	125	128	146	131	137
21	145	130	138	175	163	168	137	127	131	140	128	134
22	---	---	---	167	160	163	145	129	137	139	131	135
23	---	---	---	168	156	163	133	122	128	143	125	135
24	---	---	---	165	153	160	137	122	130	146	126	136
25	---	---	---	164	157	160	140	123	133	144	135	140
26	---	---	---	169	163	165	140	131	135	138	132	135
27	---	---	---	172	163	167	144	132	140	144	133	137
28	---	---	---	178	163	174	149	142	146	149	133	143
29	---	---	---	182	174	177	145	137	141	152	134	143
30	---	---	---	185	157	167	144	136	140	156	145	150
31	---	---	---	---	---	---	142	134	137	171	155	166
MONTH	167	126	140	255	107	169	279	114	151	356	122	142

01446700 DELAWARE RIVER AT EASTON, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	172	166	169							---	---	---
2	172	155	162							---	---	---
3	163	159	161							---	---	---
4	169	160	163							---	---	---
5	173	168	171							---	---	---
6	173	158	167							---	---	---
7	161	138	150							---	---	---
8	142	129	136							---	---	---
9	131	122	126							---	---	---
10	131	121	125							---	---	---
11	134	131	132							---	---	---
12	142	131	137							---	---	---
13	167	141	152							---	---	---
14	168	158	161							---	---	---
15	171	159	168							---	---	---
16	170	161	166							---	---	---
17	168	141	150							---	---	---
18	162	132	145							---	---	---
19	173	142	154							---	---	---
20	167	155	160							---	---	---
21	165	156	160							---	---	---
22	165	158	163							---	---	---
23	185	158	166							---	---	---
24	169	166	167							---	---	---
25	---	---	---							---	---	---
26	---	---	---							---	---	---
27	---	---	---							136	124	127
28	---	---	---							145	134	137
29	---	---	---							153	142	146
30	---	---	---							154	149	151
31	---	---	---							158	152	155
MONTH	185	121	155							158	124	143

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	167	157	161	138	132	135	137	134	135	132	130	131
2	165	160	163	138	135	136	138	130	133	133	130	131
3	168	164	165	---	---	---	134	120	126	134	130	131
4	---	---	---	---	---	---	127	119	122	134	128	130
5	---	---	---	---	---	---	134	123	127	131	128	130
6	---	---	---	---	---	---	134	123	128	134	131	133
7	165	155	159	---	---	---	138	127	131	134	130	131
8	158	155	156	---	---	---	143	135	138	130	122	125
9	160	153	156	---	---	---	154	134	138	126	124	125
10	159	150	154	---	---	---	146	122	129	128	126	127
11	150	123	136	---	---	---	132	125	128	130	125	127
12	126	121	123	145	138	141	134	129	132	134	127	132
13	132	123	126	142	134	137	138	131	134	140	132	135
14	146	131	138	138	131	135	140	138	139	141	131	136
15	147	141	145	138	125	129	144	141	143	133	129	131
16	146	138	141	130	121	125	141	137	139	135	128	132
17	148	143	146	133	123	126	138	129	132	144	124	133
18	149	141	145	135	125	131	137	129	132	131	120	128
19	146	137	141	132	125	128	140	132	136	118	102	106
20	141	133	137	128	115	120	142	140	141	116	105	111
21	143	137	140	118	112	115	142	134	137	117	111	115
22	139	130	134	118	112	115	138	133	136	111	90	95
23	133	125	129	120	108	112	143	138	141	97	91	93
24	135	130	133	132	121	125	139	134	136	101	92	95
25	146	131	136	141	133	138	134	128	130	124	103	115
26	148	136	140	138	134	136	134	129	131	125	90	102
27	144	139	142	141	134	137	133	128	130	103	80	86
28	148	140	143	145	140	143	139	132	134	90	80	85
29	150	141	145	151	145	148	145	139	143	96	84	88
30	144	133	137	148	134	139	145	142	143	98	90	95
31	---	---	---	139	138	139	143	128	132	---	---	---
MONTH	168	121	143	151	108	131	154	119	134	144	80	118

01446700 DELAWARE RIVER AT EASTON, PA--Continued

PH (UNITS), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.7	7.4	7.5	7.4	7.2	7.3	8.2	7.5	7.8	8.4	7.4	7.8
2	8.0	7.4	7.6	7.2	7.2	7.2	7.9	7.4	7.6	8.5	7.4	7.8
3	7.9	7.5	7.6	7.2	7.2	7.2	8.0	7.5	7.7	---	---	---
4	8.2	7.5	7.8	7.2	7.2	7.2	8.0	7.5	7.7	8.3	7.6	8.0
5	8.0	7.5	7.7	7.2	7.2	7.2	8.1	7.5	7.7	8.3	7.5	7.8
6	7.8	7.4	7.6	7.2	7.2	7.2	8.3	7.5	7.8	8.3	7.4	7.7
7	7.9	7.4	7.6	7.3	7.2	7.2	7.7	7.4	7.5	8.3	7.4	7.7
8	7.8	7.4	7.6	7.3	7.2	7.3	7.5	7.3	7.3	8.7	7.4	7.8
9	7.5	7.4	7.4	7.3	7.3	7.3	7.3	7.3	7.3	8.4	7.4	7.7
10	---	---	---	7.3	7.3	7.3	7.3	7.2	7.3	7.9	7.4	7.5
11	---	---	---	7.3	7.3	7.3	7.3	7.3	7.3	8.6	7.3	7.7
12	---	---	---	7.3	7.3	7.3	7.5	7.3	7.3	8.7	7.5	7.9
13	---	---	---	7.4	7.3	7.3	7.3	7.3	7.3	8.7	7.3	7.8
14	---	---	---	7.4	7.3	7.3	7.4	7.3	7.3	8.3	7.3	7.6
15	---	---	---	7.4	7.3	7.4	7.5	7.2	7.3	8.4	7.3	7.7
16	---	---	---	7.4	7.3	7.4	7.4	7.2	7.3	8.5	7.3	7.7
17	---	---	---	7.4	7.4	7.4	7.4	7.2	7.3	8.4	7.1	7.6
18	---	---	---	7.4	7.3	7.4	7.5	7.2	7.3	8.6	7.4	7.8
19	---	---	---	7.4	7.4	7.4	7.5	7.3	7.4	8.6	7.4	7.8
20	7.5	7.3	7.4	7.5	7.4	7.4	7.6	7.3	7.4	8.5	7.3	7.7
21	7.4	7.3	7.4	7.5	7.4	7.5	7.8	7.3	7.5	8.6	7.0	7.8
22	---	---	---	7.6	7.4	7.5	7.9	7.3	7.5	8.7	7.4	7.8
23	---	---	---	7.6	7.4	7.5	7.9	7.3	7.5	8.8	7.4	7.9
24	---	---	---	7.7	7.4	7.5	7.8	7.3	7.5	8.8	7.3	7.9
25	---	---	---	7.7	7.4	7.5	7.8	7.3	7.5	8.6	7.3	7.8
26	---	---	---	7.7	7.4	7.5	8.1	7.3	7.6	8.7	7.5	7.9
27	---	---	---	7.8	7.4	7.6	8.2	7.4	7.7	8.7	7.5	7.9
28	---	---	---	7.8	7.4	7.5	8.1	7.4	7.6	9.1	7.4	8.0
29	---	---	---	7.8	7.4	7.6	8.3	7.5	7.8	8.9	7.5	8.1
30	---	---	---	8.3	7.5	7.8	8.3	7.4	7.8	8.8	7.5	8.0
31	---	---	---	---	---	---	8.3	7.4	7.7	8.7	7.5	8.0
MONTH	8.2	7.3	7.6	8.3	7.2	7.4	8.3	7.2	7.5	9.1	7.0	7.8

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	9.1	7.6	8.2							---	---	---
2	9.1	7.5	8.3							---	---	---
3	8.7	7.6	8.0							---	---	---
4	8.9	7.5	8.1							---	---	---
5	8.9	7.6	8.2							---	---	---
6	9.0	7.7	8.3							---	---	---
7	9.0	7.7	8.2							---	---	---
8	8.8	7.6	8.1							---	---	---
9	8.4	7.5	7.9							---	---	---
10	8.4	7.4	7.8							---	---	---
11	8.6	7.4	7.9							---	---	---
12	8.6	7.5	7.9							---	---	---
13	8.3	7.4	7.8							---	---	---
14	8.2	7.5	7.8							---	---	---
15	8.0	7.5	7.6							---	---	---
16	8.4	7.4	7.9							---	---	---
17	8.5	7.4	7.9							---	---	---
18	8.4	7.5	7.8							---	---	---
19	8.2	7.4	7.7							---	---	---
20	7.8	7.4	7.6							---	---	---
21	8.5	7.5	7.9							---	---	---
22	8.6	7.6	7.9							---	---	---
23	8.4	7.5	7.8							---	---	---
24	7.7	7.5	7.6							---	---	---
25	---	---	---							---	---	---
26	---	---	---							---	---	---
27	---	---	---							8.6	8.1	8.4
28	---	---	---							8.7	7.6	8.3
29	---	---	---							8.7	7.6	8.2
30	---	---	---							8.4	7.5	8.0
31	---	---	---							8.5	7.4	8.0
MONTH	9.1	7.4	7.9							8.7	7.4	8.2

01446700 DELAWARE RIVER AT EASTON, PA--Continued

PH (UNITS), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	7.9	7.5	7.6	8.4	7.4	8.0	7.8	7.4	7.6	8.1	7.0	7.4
2	7.6	7.3	7.4	7.9	7.5	7.7	8.3	7.1	7.7	8.1	7.0	7.5
3	7.3	7.1	7.2	---	---	---	7.7	7.1	7.3	8.2	7.0	7.6
4	---	---	---	---	---	---	7.9	7.0	7.4	8.4	7.1	7.7
5	---	---	---	---	---	---	8.0	7.1	7.5	8.2	7.1	7.6
6	---	---	---	---	---	---	8.2	7.1	7.6	8.3	7.1	7.6
7	8.4	7.5	8.1	7.5	7.2	7.3	8.1	7.1	7.6	8.4	7.1	7.7
8	8.6	7.5	8.1	7.2	6.9	7.1	8.4	7.2	7.8	8.1	7.1	7.6
9	8.1	7.5	7.7	7.3	6.9	7.1	8.4	7.3	7.8	8.3	7.1	7.7
10	8.0	7.3	7.6	7.5	7.2	7.3	---	---	---	8.4	7.1	7.7
11	7.9	7.4	7.6	7.9	7.6	7.8	---	---	---	8.3	7.2	7.7
12	8.2	7.3	7.7	8.4	7.7	8.0	8.3	7.5	8.0	8.5	7.2	7.8
13	8.6	7.3	7.8	8.5	7.2	7.8	7.6	7.1	7.3	8.2	7.2	7.7
14	8.2	7.3	7.8	8.7	7.3	8.0	7.9	7.1	7.4	8.1	7.2	7.6
15	8.6	7.3	7.9	8.7	7.3	8.1	8.3	7.1	7.7	8.3	7.2	7.7
16	8.8	7.5	8.2	8.7	7.3	8.1	8.2	7.2	7.6	7.5	7.2	7.4
17	8.8	7.6	8.3	8.7	7.2	8.0	8.0	7.2	7.5	8.0	7.1	7.4
18	8.8	7.5	8.2	8.6	7.1	7.9	8.4	7.2	7.7	8.1	7.1	7.5
19	8.9	7.6	8.4	8.6	7.1	7.9	8.4	7.2	7.9	7.8	7.0	7.3
20	8.9	7.7	8.4	8.1	7.0	7.5	8.6	7.3	8.0	7.5	6.9	7.2
21	8.5	7.7	8.1	8.5	7.0	7.7	8.7	7.4	8.1	7.6	7.0	7.2
22	8.7	7.5	8.1	8.5	7.1	7.8	8.5	7.4	8.0	7.1	6.8	6.9
23	8.8	7.6	8.3	8.5	7.1	7.8	8.6	7.3	8.0	6.9	6.8	6.8
24	8.8	7.6	8.3	8.6	7.1	7.9	8.3	7.4	7.9	6.9	6.8	6.8
25	8.3	7.5	7.8	7.9	7.1	7.4	8.5	7.2	7.9	7.1	6.9	7.0
26	7.9	7.4	7.6	8.3	7.1	7.7	8.7	7.3	8.1	7.0	6.7	6.9
27	8.4	7.3	7.9	8.4	7.2	7.8	8.6	7.4	8.1	6.8	6.5	6.7
28	8.3	7.4	7.8	8.5	7.3	8.0	8.8	7.2	8.1	6.8	6.6	6.7
29	8.3	7.3	7.7	8.6	7.3	8.0	8.7	7.3	8.1	6.9	6.7	6.8
30	8.6	7.3	8.0	8.4	7.3	7.9	8.7	7.3	8.1	7.3	6.8	6.9
31	---	---	---	7.8	7.6	7.7	8.1	7.2	7.5	---	---	---
MONTH	8.9	7.1	7.9	8.7	6.9	7.8	8.8	7.0	7.8	8.5	6.5	7.3

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	15.5	15.0	15.5	8.5	8.0	8.5	4.5	3.5	4.0	2.0	1.0	1.5
2	15.5	15.0	15.5	8.5	7.5	8.5	4.0	3.0	3.5	2.5	1.5	2.0
3	15.5	15.0	15.0	9.0	8.5	9.0	3.0	2.0	2.5	---	---	---
4	16.0	15.0	15.5	9.5	8.5	9.0	2.0	2.0	2.0	4.0	3.5	3.5
5	16.0	15.5	16.0	9.5	8.5	9.0	3.0	2.0	2.5	3.5	2.5	3.0
6	16.5	15.5	16.0	8.5	7.5	8.0	4.0	2.0	3.0	3.0	2.0	2.5
7	17.0	16.0	16.5	8.0	7.5	8.0	5.0	3.5	4.5	3.5	2.0	2.5
8	17.5	16.5	17.0	8.0	6.0	7.0	4.0	2.5	3.5	2.0	1.5	1.5
9	18.5	17.5	18.0	6.0	5.5	6.0	5.5	3.0	3.5	2.0	1.0	1.5
10	---	---	---	6.0	5.5	6.0	4.5	4.0	4.0	2.0	1.0	1.5
11	---	---	---	6.0	6.0	6.0	5.0	4.5	5.0	2.0	1.5	1.5
12	---	---	---	6.0	5.5	6.0	5.5	5.0	5.0	2.0	1.5	1.5
13	---	---	---	5.5	5.0	5.5	5.5	5.0	5.5	2.0	1.5	1.5
14	---	---	---	5.5	4.5	5.0	2.0	1.5	1.5	2.0	2.0	2.0
15	---	---	---	5.5	4.5	5.0	3.0	1.5	2.0	3.0	2.0	2.5
16	---	---	---	5.0	4.5	5.0	3.0	2.5	2.5	2.0	1.5	2.0
17	---	---	---	5.0	4.0	4.5	3.0	2.5	2.5	5.5	1.5	2.0
18	---	---	---	6.0	4.5	5.5	3.0	2.0	2.5	1.5	1.5	1.5
19	---	---	---	6.5	5.5	6.0	3.0	2.0	2.5	2.0	1.0	1.5
20	10.5	10.0	10.5	6.5	6.0	6.0	3.5	2.5	3.0	3.0	2.0	2.5
21	10.5	10.5	10.5	6.5	5.5	6.0	3.5	2.0	3.0	2.5	1.5	2.0
22	---	---	---	6.0	5.5	5.5	2.0	1.5	2.0	2.5	1.5	2.0
23	---	---	---	5.0	5.0	5.0	3.0	1.5	2.0	3.0	1.5	2.5
24	---	---	---	5.0	4.5	4.5	3.0	2.0	2.0	3.5	2.0	3.0
25	---	---	---	5.0	4.5	4.5	2.5	2.0	2.0	4.0	3.0	3.5
26	---	---	---	5.5	4.5	5.0	3.0	2.0	2.5	3.5	2.5	3.0
27	---	---	---	6.0	5.5	6.0	2.5	1.5	2.0	3.5	2.0	3.0
28	---	---	---	7.5	6.0	6.5	2.0	1.5	2.0	3.5	2.0	2.5
29	---	---	---	7.5	6.0	7.0	3.0	2.0	2.0	2.0	1.5	1.5
30	---	---	---	6.0	4.5	5.0	1.5	1.0	1.5	2.0	1.5	1.5
31	---	---	---	---	---	---	2.0	1.0	1.5	2.5	1.5	2.0
MONTH	18.5	10.0	15.0	9.5	4.0	6.5	5.5	1.0	3.0	5.5	1.0	2.0

01446700 DELAWARE RIVER AT EASTON, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	3.5	2.0	2.5							---	---	---
2	4.0	3.0	3.5							---	---	---
3	4.0	3.5	4.0							---	---	---
4	5.0	4.0	4.5							---	---	---
5	5.0	3.0	4.5							---	---	---
6	3.5	2.0	2.5							---	---	---
7	3.5	1.5	2.5							---	---	---
8	4.0	2.5	3.0							---	---	---
9	2.5	2.0	2.5							---	---	---
10	3.5	2.5	3.0							---	---	---
11	5.0	3.0	4.0							---	---	---
12	5.5	4.0	4.5							---	---	---
13	5.5	4.5	5.0							---	---	---
14	4.5	4.0	4.0							---	---	---
15	4.5	3.5	4.0							---	---	---
16	4.0	3.0	3.5							---	---	---
17	3.0	2.0	2.5							---	---	---
18	3.5	2.0	3.0							---	---	---
19	4.0	3.5	3.5							---	---	---
20	3.5	3.0	3.5							---	---	---
21	4.0	2.0	3.0							---	---	---
22	4.0	2.0	3.0							---	---	---
23	5.5	3.5	4.5							---	---	---
24	5.0	4.5	4.5							---	---	---
25	---	---	---							---	---	---
26	---	---	---							---	---	---
27	---	---	---							25.5	23.5	24.5
28	---	---	---							25.5	23.5	24.5
29	---	---	---							25.0	23.5	24.5
30	---	---	---							24.5	23.0	24.0
31	---	---	---							24.5	22.5	24.0
MONTH	5.5	1.5	3.5							25.5	22.5	24.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	24.0	23.0	23.5	27.5	26.5	27.0	27.5	27.0	27.0	27.5	26.0	27.0
2	25.5	23.5	24.5	27.0	26.5	27.0	28.5	26.0	27.5	28.5	26.5	27.5
3	25.0	24.0	24.5	---	---	---	27.5	26.0	26.5	28.5	26.5	27.5
4	---	---	---	---	---	---	27.5	26.0	26.5	28.0	26.0	27.0
5	---	---	---	---	---	---	28.0	26.0	27.0	27.0	26.0	26.5
6	---	---	---	---	---	---	28.5	27.0	28.0	27.0	26.0	26.5
7	22.5	21.5	22.0	27.5	26.0	26.5	29.0	27.5	28.0	27.0	26.0	26.5
8	22.0	20.5	21.5	28.5	25.5	26.5	30.0	28.0	29.0	26.0	25.0	25.5
9	21.5	20.0	20.5	29.0	28.0	28.5	30.5	28.5	29.5	25.5	24.0	25.0
10	20.0	18.5	19.5	29.0	27.5	28.5	29.0	28.0	28.5	26.0	24.5	25.0
11	19.5	18.0	18.5	29.0	27.5	28.0	29.5	27.5	28.5	25.0	23.0	24.0
12	20.5	18.5	19.5	29.0	27.0	28.5	29.0	28.0	28.5	23.5	21.5	22.5
13	23.5	20.0	21.5	29.5	27.5	28.5	28.0	27.0	27.5	22.5	22.0	22.5
14	23.5	22.5	23.0	30.5	28.0	29.5	27.0	26.5	27.0	23.5	22.5	22.5
15	25.0	23.0	24.0	31.0	28.5	30.0	28.5	26.0	27.0	22.5	21.5	22.0
16	25.5	23.5	24.5	31.0	29.0	30.0	27.0	26.0	26.5	21.5	21.0	21.0
17	25.5	24.0	24.5	32.0	29.5	31.0	27.0	26.0	26.5	23.0	21.0	22.0
18	25.5	24.0	24.5	32.5	30.0	31.5	26.5	25.0	26.0	23.0	21.5	22.0
19	26.5	24.5	25.5	32.5	30.5	31.5	26.0	24.0	25.0	23.5	22.5	23.0
20	27.0	25.0	26.0	31.5	30.0	31.0	26.0	23.5	25.0	24.0	23.0	23.5
21	25.5	24.5	25.0	32.0	30.0	31.0	24.5	23.5	24.0	23.0	21.5	22.0
22	25.0	23.5	24.5	31.0	30.0	30.5	25.0	23.5	24.0	21.5	19.0	20.0
23	26.0	24.0	25.0	30.0	28.0	29.0	25.0	23.5	24.5	19.0	18.5	18.5
24	26.0	24.5	25.0	30.0	27.5	28.5	24.5	24.0	24.5	18.5	18.0	18.0
25	25.0	23.0	24.5	28.5	27.0	28.0	25.0	22.5	23.5	18.0	17.0	17.0
26	24.5	22.5	23.5	28.0	26.0	27.0	25.0	22.5	23.5	17.0	15.0	15.5
27	26.5	23.5	25.0	27.0	25.0	26.0	25.0	23.5	24.5	15.0	14.5	15.0
28	26.5	25.0	26.0	27.0	24.5	25.5	27.0	24.0	25.5	16.5	15.0	15.5
29	27.5	25.5	26.5	27.0	24.5	26.0	28.0	26.0	27.0	16.5	15.5	16.0
30	28.0	25.5	26.5	27.0	25.5	26.5	28.5	26.5	27.5	17.5	16.0	16.5
31	---	---	---	26.5	26.5	26.5	27.5	26.5	27.0	---	---	---
MONTH	28.0	18.0	23.5	32.5	24.5	28.5	30.5	22.5	26.5	28.5	14.5	22.0

01446700 DELAWARE RIVER AT EASTON, PA--Continued

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	11.3	10.5	10.9	---	---	---	14.2	12.4	13.3	14.5	12.7	13.6
2	11.8	10.6	11.1	---	---	---	14.0	13.2	13.5	14.8	12.8	13.7
3	11.7	10.7	11.1	---	---	---	14.5	13.0	13.7	---	---	---
4	12.0	10.7	11.3	---	---	---	14.7	13.4	14.0	14.4	13.3	13.9
5	11.9	10.7	11.2	---	---	---	14.8	13.5	14.1	14.6	13.0	13.7
6	11.4	10.6	10.9	---	---	---	14.7	13.3	13.9	14.6	13.0	13.6
7	10.7	9.8	10.3	---	---	---	---	---	---	14.4	12.6	13.3
8	10.3	9.4	9.8	---	---	---	---	---	---	15.0	12.6	13.6
9	9.5	8.0	9.0	---	---	---	---	---	---	14.8	13.0	13.7
10	---	---	---	---	---	---	---	---	---	13.8	12.7	13.2
11	---	---	---	---	---	---	---	---	---	14.8	12.3	13.3
12	---	---	---	---	---	---	---	---	---	15.3	13.1	13.9
13	---	---	---	13.3	12.8	13.1	---	---	---	15.4	13.0	13.9
14	---	---	---	13.4	13.0	13.1	14.9	14.4	14.7	14.7	13.0	13.7
15	---	---	---	13.4	12.9	13.1	15.1	14.1	14.5	14.8	12.9	13.7
16	---	---	---	13.7	12.9	13.3	14.8	14.0	14.3	14.9	12.8	13.6
17	---	---	---	13.9	13.3	13.5	14.4	13.6	14.0	14.6	9.7	13.3
18	---	---	---	13.7	13.1	13.4	14.5	13.5	14.0	14.9	12.7	13.6
19	---	---	---	---	---	---	14.7	13.7	14.1	14.9	12.9	13.6
20	11.3	10.9	11.1	---	---	---	14.5	13.6	13.9	14.6	12.5	13.4
21	11.1	10.7	10.9	---	---	---	14.4	13.2	13.7	14.7	12.6	13.5
22	---	---	---	---	---	---	15.0	13.3	14.1	14.6	12.6	13.5
23	---	---	---	---	---	---	15.4	13.7	14.6	15.1	12.6	13.6
24	---	---	---	14.5	13.6	14.1	15.4	14.1	14.7	15.1	12.5	13.6
25	---	---	---	14.4	13.6	14.0	15.3	14.2	14.7	14.5	12.4	13.4
26	---	---	---	14.5	13.5	14.0	15.5	14.1	14.7	14.7	12.5	13.4
27	---	---	---	14.5	13.3	13.8	15.1	13.1	14.0	14.6	12.4	13.4
28	---	---	---	14.1	12.9	13.4	14.0	12.7	13.2	14.9	12.2	13.3
29	---	---	---	13.8	12.5	13.0	14.3	12.8	13.4	14.8	12.2	13.4
30	---	---	---	13.9	12.6	13.1	14.4	12.8	13.6	14.8	12.4	13.5
31	---	---	---	---	---	---	14.3	13.0	13.6	14.6	12.2	13.4
MONTH	12.0	8.0	10.7	14.5	12.5	13.5	15.5	12.4	14.0	15.4	9.7	13.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	14.9	12.3	13.5							---	---	---
2	15.9	12.3	13.9							---	---	---
3	14.9	12.5	13.5							---	---	---
4	15.4	12.4	13.6							---	---	---
5	15.0	12.0	13.4							---	---	---
6	15.6	12.5	14.0							---	---	---
7	15.6	13.2	14.2							---	---	---
8	15.4	13.0	14.1							---	---	---
9	15.2	13.4	14.2							---	---	---
10	15.0	13.2	14.0							---	---	---
11	15.1	12.9	13.9							---	---	---
12	15.0	12.7	13.7							---	---	---
13	14.7	12.5	13.5							---	---	---
14	14.8	12.6	13.6							---	---	---
15	14.5	12.5	13.3							---	---	---
16	14.4	12.2	13.2							---	---	---
17	14.3	12.5	13.3							---	---	---
18	14.2	12.5	13.2							---	---	---
19	14.0	12.3	13.1							---	---	---
20	13.3	12.0	12.6							---	---	---
21	14.1	12.0	13.0							---	---	---
22	14.4	12.2	13.2							---	---	---
23	14.1	12.2	13.1							---	---	---
24	12.6	12.0	12.2							---	---	---
25	---	---	---							---	---	---
26	---	---	---							---	---	---
27	---	---	---							10.1	7.1	9.3
28	---	---	---							7.7	6.0	6.7
29	---	---	---							8.3	5.9	6.9
30	---	---	---							7.8	6.9	7.3
31	---	---	---							8.6	6.6	7.6
MONTH	15.9	12.0	13.5							10.1	5.9	7.6

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	7.1	6.1	6.4	8.8	6.7	7.8	8.2	7.4	7.8	9.1	7.0	7.9
2	---	---	---	7.3	6.8	7.1	9.1	7.0	8.0	9.1	7.1	7.9
3	---	---	---	---	---	---	7.8	7.0	7.4	9.2	6.9	8.0
4	---	---	---	---	---	---	8.7	7.1	7.8	9.4	7.1	8.2
5	---	---	---	---	---	---	8.8	7.3	8.0	9.2	7.1	8.0
6	---	---	---	---	---	---	8.9	7.1	7.9	8.8	7.1	7.8
7	9.4	8.1	8.8	---	---	---	8.5	6.8	7.5	9.0	6.7	7.8
8	10.0	7.6	8.9	---	---	---	8.3	6.4	7.3	8.7	7.0	7.9
9	8.8	7.6	8.2	---	---	---	8.9	6.0	7.4	9.0	7.2	8.0
10	9.4	7.7	8.6	---	---	---	---	---	---	9.0	7.0	7.9
11	9.4	8.3	8.9	---	---	---	---	---	---	9.0	7.1	8.0
12	9.6	8.4	9.0	8.8	7.3	8.2	9.3	7.6	8.5	9.8	7.5	8.6
13	9.8	8.0	8.8	9.2	6.6	7.8	8.3	7.1	7.6	9.3	7.6	8.3
14	9.4	7.6	8.4	9.4	6.5	7.9	8.8	7.1	7.8	9.0	7.5	8.1
15	9.9	7.3	8.6	9.4	6.4	7.9	9.4	7.2	8.3	9.6	7.6	8.5
16	10.4	7.4	8.9	9.3	6.3	7.7	9.2	7.3	8.1	8.7	7.9	8.3
17	10.0	7.4	8.6	8.8	5.9	7.3	8.9	7.5	8.1	9.2	7.7	8.4
18	10.1	7.2	8.7	8.1	5.4	6.7	9.6	7.7	8.6	9.3	7.8	8.5
19	10.1	7.2	8.6	7.7	5.2	6.4	9.9	7.9	8.9	8.7	7.6	8.1
20	9.8	6.8	8.3	---	---	---	10.4	8.0	9.2	8.4	7.4	7.8
21	8.8	6.7	7.8	9.5	7.5	8.5	10.6	8.0	9.3	8.8	7.6	8.1
22	9.8	7.1	8.6	8.9	6.5	7.7	10.2	8.0	9.0	8.4	8.1	8.2
23	10.2	7.4	8.8	9.0	6.6	7.8	10.7	7.9	9.2	8.6	8.3	8.5
24	9.9	7.2	8.6	8.7	6.3	7.4	9.5	7.8	8.6	8.7	8.5	8.6
25	8.2	7.0	7.6	8.6	5.7	7.0	10.5	8.0	9.2	8.8	8.6	8.7
26	8.5	7.0	7.8	9.7	7.2	8.4	10.7	8.2	9.5	9.4	8.8	9.1
27	9.1	7.2	8.1	10.2	7.6	8.9	10.3	8.1	9.2	9.6	8.8	9.4
28	8.5	6.7	7.5	9.9	7.9	8.8	11.0	7.9	9.3	9.4	9.1	9.3
29	8.1	6.3	7.2	9.8	7.3	8.6	10.6	7.3	8.8	9.4	9.1	9.3
30	9.6	6.1	7.7	9.1	7.0	8.0	10.4	7.1	8.7	9.6	9.2	9.4
31	---	---	---	7.7	7.4	7.6	8.3	7.1	7.7	---	---	---
MONTH	10.4	6.1	8.3	10.2	5.2	7.8	11.0	6.0	8.4	9.8	6.7	8.4

01446990 BUSHKILL CREEK AT EASTON, PA

LOCATION.--Lat 40°41'40", long 75°12'48", Northampton County, Hydrologic Unit 02040105, at bridge on U.S. Route 22 in Easton, 0.5 mi (0.8 km) upstream from Delaware River.

DRAINAGE AREA.--not available.

PERIOD OF RECORD.--October 1975 to current year.

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA,MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)
OCT 27...	1210	9813	360	7.2	7.5	5	11.8	145	--	0	38	12
NOV 22...	1105	9813	430	7.5	4.5	2	12.5	195	--	0	52	16
DEC 20...	1120	9813	380	--	--	1	--	168	0	0	44	14
JAN 26...	0945	9813	500	7.6	4.0	1	13.0	220	--	0	48	24
FEB 15...	1050	9813	360	--	3.0	4	12.8	140	0	0	41	9.0
MAR 28...	0945	9813	350	7.7	8.0	2	11.1	130	--	0	41	6.5
APR 12...	0935	9813	400	7.7	11.0	1	11.7	145	0	0	20	--
MAY 10...	1050	9813	450	8.0	9.5	2	12.2	164	--	0	45	12
JUN 23...	0940	9813	600	8.0	16.0	2	9.5	256	--	0	64	23
JUL 07...	0935	9813	480	7.5	18.5	4	8.5	208	--	0	65	11
AUG 10...	0950	9813	400	7.5	19.5	10	8.0	146	--	0	39	12
SEP 21...	0945	9813	600	--	15.5	3	8.3	232	--	0	68	15

DATE	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TOTAL RESI- DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)
OCT 27...	70	62	12	256	--	--	3.2	.04	.06	.08	1960	--
NOV 22...	52	68	14	306	--	--	4.1	.02	<.02	.07	130	20
DEC 20...	100	56	13	244	--	--	4.8	.02	.09	.06	130	--
JAN 26...	134	90	19	348	--	--	4.1	.03	.08	.09	170	--
FEB 15...	82	70	30	238	16	254	3.9	.05	.26	.10	1930	110
MAR 28...	84	50	15	258	--	--	4.1	.02	.10	.06	190	--
APR 12...	96	56	15	396	--	--	4.1	.04	.09	.05	120	--
MAY 10...	104	86	17	276	6	282	3.2	.06	.19	.06	120	30
JUN 23...	148	140	21	436	8	--	4.0	.07	.34	.11	290	--
JUL 07...	138	98	20	390	10	--	3.2	.04	.05	.21	470	--
AUG 10...	70	72	23	280	10	--	2.3	.05	.04	.44	410	20
SEP 21...	152	144	18	498	0	498	3.2	.04	.44	.16	300	--

01447500 LEHIGH RIVER AT STODDARTSVILLE, PA

LOCATION.--Lat 41°07'49", long 75°37'33", Monroe County, Hydrologic Unit 02040106, on left bank 75 ft (23 m) upstream from bridge on State Highway 115, at Stoddartsville, 1.9 mi (3.1 km) upstream from Tobyhanna Creek, and 4 mi (6 km) southwest of Thornhurst. Water-quality sampling site at bridge 75 ft (23 m) downstream.

DRAINAGE AREA.--91.7 mi^2 (237.5 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1943 to current year.

REVISED RECORDS.--WSP 1382: 1947, 1951.

GAGE.--Water-stage recorder. Datum of gage is 1,463.81 ft (446.169 m) above mean sea level. Prior to Oct. 1, 1946, nonrecording gage at site 350 ft (110 m) downstream at datum 2.14 ft (0.652 m) lower.

REMARKS.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--34 years, 186 ft^3/s (5.268 m^3/s), 27.55 in/year (700 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,900 ft^3/s (903 m^3/s) Aug. 19, 1955, gage height, 16.37 ft (4.990 m), from floodmarks, from rating curve extended above 1,700 ft^3/s (48 m^3/s) on basis of slope-area measurement of peak flow; minimum observed, 7.0 ft^3/s (0.20 m^3/s) Sept. 26, 27, 1964, gage height, 0.22 ft (0.067 m).

EXTREMES OUTSIDE OF PERIOD OF RECORD.--Flood of May 22, 1942 reached a stage of 12.03 ft (3.667 m), from floodmark, present site and datum, discharge, 15,700 ft^3/s (445 m^3/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,300 ft^3/s (36.8 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Oct. 9	1830	*1,990	56.4	*4.66	1.420
Mar. 5	0500	1,400	39.6	3.77	1.149
Apr. 3	0700	1,460	41.3	3.87	1.180
Apr. 24	2400	1,420	40.2	3.80	1.158

Minimum discharge observed, 24 ft^3/s (0.68 m^3/s) Sept. 11, gage height, 0.35 ft (0.107 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	112	362	110	86	47	551	642	303	85	44	39	49
2	117	292	96	83	47	411	590	276	93	41	59	41
3	170	261	92	80	46	333	1280	256	85	39	54	38
4	189	258	90	78	46	510	857	240	77	37	57	32
5	135	243	88	76	46	1270	923	317	70	37	47	29
6	110	235	86	74	46	971	844	307	70	40	45	49
7	98	225	382	72	46	670	628	293	100	62	49	48
8	100	214	464	70	45	500	532	240	91	108	49	37
9	1180	193	333	68	45	421	449	286	137	80	43	33
10	1240	183	222	66	45	396	382	350	339	62	43	35
11	672	175	198	64	48	371	339	395	224	53	49	30
12	444	165	179	63	55	340	303	343	152	53	43	27
13	337	155	161	61	51	534	273	289	126	62	40	25
14	337	148	150	60	48	1080	247	246	106	50	40	28
15	289	142	140	58	47	781	221	221	96	44	54	29
16	240	136	134	57	47	561	202	200	87	40	48	32
17	208	131	128	56	46	437	186	186	78	39	70	78
18	185	130	125	56	46	396	173	183	78	37	79	70
19	168	128	125	55	45	369	164	192	200	37	59	110
20	240	125	118	54	49	320	153	170	121	45	49	110
21	869	122	129	53	46	293	145	152	96	48	43	90
22	592	118	115	52	45	512	141	137	80	145	50	90
23	416	112	110	52	56	769	202	126	70	82	51	90
24	354	106	105	51	100	628	1140	121	62	65	46	100
25	392	102	100	51	748	502	1220	115	59	64	43	360
26	530	99	98	50	608	421	780	106	68	80	42	800
27	426	102	96	50	424	400	614	96	60	60	38	700
28	338	106	94	49	758	472	509	91	56	51	36	411
29	299	132	92	49	---	692	412	83	55	44	35	297
30	271	121	90	48	---	1090	347	85	50	42	36	220
31	370	---	87	48	---	896	---	83	---	40	42	---
TOTAL	11428	5021	4537	1890	3726	17897	14898	6488	3071	1731	1478	4088
MEAN	369	167	146	61.0	133	577	497	209	102	55.8	47.7	136
MAX	1240	362	464	86	758	1270	1280	395	339	145	79	800
MIN	98	99	86	48	45	293	141	83	50	37	35	25
CFSM	4.02	1.82	1.59	.67	1.45	6.29	5.42	2.28	1.11	.61	.52	1.48
IN.	4.64	2.04	1.84	.77	1.51	7.26	6.04	2.63	1.25	.70	.60	1.66

CAL YR 1976 TOTAL 72510 MEAN 198 MAX 1970 MIN 36 CFSM 2.16 IN 29.41
WTR YR 1977 TOTAL 76253 MEAN 209 MAX 1280 MIN 25 CFSM 2.28 IN 30.93

01447500 LEHIGH RIVER AT STODDARTSVILLE, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--January 1976 to current year.

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER QUALITY DATA, NOVEMBER 1976 TO AUGUST 1977

DATE	TIME	CODE FOR AGENCY COLLECTING SAMPLE	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)
NOV 09...	1515	9813	189	70	7.5	9.0	2	11.0	20	--	0
FEB 24...	1300	9813	121	50	--	1.0	<1	--	20	0	0
AUG 22...	1130	9813	49	35	6.0	13.0	<1	11.1	10	--	0

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	TOTAL FILTRABLE RESIDUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
NOV 09...	8.0	.0	20	8.0	9.0	--	.54	.01	.06	.03	460
FEB 24...	5.5	1.5	14	5.0	6.0	54	.69	.04	.17	.05	150
AUG 22...	4.7	.0	22	8.0	6.0	38	.58	.03	.06	.04	130

01447680 TUNKHANNOCK CREEK NEAR LONG POND, PA

LOCATION.--Lat 41°03'55", long 75°31'14", Monroe County, Hydrologic Unit 02040106, on left bank 0.6 mi (1.0 km) downstream from unnamed tributary, 0.9 mi (1.4 km) downstream from bridge on Legislative Route 45040, 3 mi (5 km) west of Long Pond, and 5 mi (8 km) upstream from mouth.

DRAINAGE AREA.--18.0 mi² (46.6 km²). At site used prior to July 7, 1966, 16.8 mi² (43.5 km²).

PERIOD OF RECORD.--March 1965 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 1,800 ft (550 m), from topographic map. Prior to July 7, 1966, nonrecording gage at site 0.9 mi (1.4 km) upstream at different datum.

REMARKS.--Records good except those for winter periods, which are fair. Diversion above station, since October 1969, to Wild Creek Basin.

AVERAGE DISCHARGE.--12 years, 45.7 ft³/s (1.29 m³/s), 34.48 in/yr (876 mm/yr), adjusted for diversion since October 1969.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 480 ft³/s (13.6 m³/s) July 30, 1969, gage height, 4.34 ft (1.323 m); minimum, 3.0 ft³/s (0.085 m³/s) Mar. 11, 1969, gage height, 1.84 ft (0.561 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 170 ft³/s (4.81 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Oct. 10	2330	192	5.44	3.13	0.954
Dec. 9	0930	*313	8.86	*3.54	1.079
Dec. 14	0730	192	5.44	3.13	0.954
Mar. 1	0900	214	6.06	3.17	0.966
Mar. 6	0700	272	7.70	3.36	1.024
Mar. 14	2030	283	8.01	3.40	1.036
Mar. 24	2000	208	5.89	3.15	0.960
Apr. 4	0200	188	5.32	3.09	0.942

Minimum discharge, 6.2 ft³/s (0.18 m³/s) Sept. 15, gage height, 2.01 ft (0.613 m), but may have been less during period of ice effect.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	89	32	22	6.0	130	139	56	21	16	9.0	8.0
2	40	95	27	22	5.8	119	125	48	21	16	9.0	8.5
3	42	85	25	21	5.7	96	179	47	18	16	11	8.5
4	47	75	24	20	5.6	96	182	48	20	13	15	8.6
5	47	69	24	20	5.6	239	179	59	18	13	16	8.0
6	42	65	23	19	5.4	263	185	61	19	16	16	10
7	37	64	68	19	5.4	201	169	51	22	16	13	31
8	38	58	169	18	5.4	133	136	44	26	27	13	29
9	125	53	198	17	5.3	103	116	42	32	30	11	21
10	186	58	91	16	5.2	89	103	50	86	23	11	15
11	185	56	76	15	5.7	87	96	66	66	18	12	11
12	153	52	60	14	6.6	84	84	56	48	17	13	9.6
13	114	48	46	14	6.3	148	82	41	29	19	13	8.6
14	88	45	40	13	5.9	269	76	40	23	22	13	8.7
15	78	46	38	12	5.6	260	74	37	20	18	12	7.6
16	67	44	37	12	5.3	188	68	35	26	15	12	12
17	61	42	36	11	5.2	136	66	32	18	14	15	29
18	54	40	35	10	5.1	108	63	32	19	13	23	38
19	54	40	34	9.7	5.0	98	61	33	35	12	25	37
20	62	43	32	9.2	5.5	96	59	33	30	12	19	55
21	121	44	36	8.7	6.9	84	54	31	30	17	16	31
22	138	37	31	8.3	5.8	116	53	29	26	14	15	29
23	127	33	30	8.0	10	142	56	28	21	15	14	25
24	108	34	29	7.6	20	185	96	27	18	13	13	30
25	96	33	28	7.2	66	185	127	25	18	13	12	76
26	98	32	27	6.9	88	169	114	23	19	15	11	131
27	101	34	28	6.7	101	148	91	23	19	15	9.9	162
28	93	34	27	6.5	119	130	74	22	18	13	9.5	121
29	80	36	25	6.3	---	145	66	21	18	12	8.7	96
30	73	40	24	6.1	---	175	58	20	17	11	8.6	73
31	81	---	23	6.0	---	163	---	20	---	10	8.7	---
TOTAL	2680	1524	1423	392.2	528.3	4581	3029	1184	820	483	406.8	1097.6
MEAN	86.5	50.8	45.9	12.7	18.9	148	101	38.2	27.3	15.6	13.1	36.6
MAX	186	95	198	22	119	269	185	66	86	30	25	162
MIN	37	32	23	6.0	5.0	84	53	20	17	10	8.6	7.6
(≠)	.03	.03	.03	.03	.03	.03	.03	.03	.03	.10	.41	.41
MEAN≠	86.5	50.8	45.9	12.7	18.9	148	101	38.2	27.3	15.8	13.5	37.0
CFSM≠	4.81	2.82	2.55	.71	1.05	8.22	5.61	2.12	1.52	.88	.75	2.06
IN.≠	5.54	3.15	2.94	.82	1.09	9.48	6.26	2.44	1.70	1.02	.87	2.30

CAL YR 1976 TOTAL 19574.4 MEAN 53.5 MAX 419 MIN 8.0 MEAN≠ 53.5 CFSM≠ 2.97 IN.≠ 40.43
WTR YR 1977 TOTAL 18148.7 MEAN 49.7 MAX 269 MIN 5.0 MEAN≠ 49.8 CFSM≠ 2.77 IN.≠ 37.56

≠ Diversion above station to Wild Creek basin, equivalent in cubic feet per second furnished by city of Bethlehem.
≠ Adjusted for diversion.

01447720 TOBYHANNA CREEK NEAR BLAKESLEE, PA

LOCATION.--Lat 41°05'05", long 75°36'21", Carbon County, Hydrologic Unit 02040106, on left bank 50 ft (15 m) downstream from bridge on State Highway 940, 500 ft (150 m) downstream from Shingle Mill Run, and 1.5 mi (2.4 km) southwest of Blakeslee. Water-quality sampling site at bridge 50 ft (15 m) upstream.

DRAINAGE AREA.--118 mi^2 (306 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,511.23 ft (460.623 m) above mean sea level. Prior to Jan. 16, 1962, nonrecording gage at site 50 ft (15 m) upstream at same datum.

REMARKS.--Records good except those for winter periods, which are fair. Occasional regulation by Pocono Lake about 5.0 mi (8.0 km) upstream and minor diversion from Tunkhannock Creek basin into Wild Creek basin.

AVERAGE DISCHARGE.--16 years, 253 ft^3/s (7.165 m^3/s) 29.12 in/yr (740 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,760 ft^3/s (191 m^3/s) July 29, 1969, gage height, 10.69 ft (3.258 m), from rating curve extended above 4,200 ft^3/s (120 m^3/s) on basis of slope-area measurement at gage height 19.41 ft (5.916 m); minimum, 22 ft^3/s (0.62 m^3/s) Sept. 24, 25, 1964, gage height, 1.51 ft (0.460 m).

EXTREMES OUTSIDE OF PERIOD OF RECORD.--Flood of Aug. 19, 1955, reached a stage of 19.41 ft (5.916 m), from floodmark, discharge, 35,300 ft^3/s (1,000 m^3/s), by slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,600 ft^3/s (45.3 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Oct. 9	1700	*2,920	82.7	*7.16	2.182
Mar. 5	0500	2,270	64.3	6.39	1.948
Mar. 14	1100	2,170	61.5	6.26	1.908
Mar. 23	0200	1,880	53.2	5.88	1.792
Apr. 3	1200	1,600	45.3	5.48	1.670
Apr. 24	2300	1,830	51.8	5.82	1.774
Sept.26	1700	1,600	45.3	5.49	1.673

Minimum discharge, 40 ft^3/s (1.13 m^3/s) Sept. 12, 13, gage height, 1.72 ft (0.524 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	292	610	181	125	71	780	830	331	104	78	59	75
2	239	506	164	120	71	557	771	298	110	65	70	68
3	325	428	166	115	70	440	1510	286	104	61	75	64
4	277	405	152	110	69	703	1220	271	96	58	87	57
5	289	380	168	105	68	2110	1290	344	91	59	83	52
6	234	350	160	105	68	1690	1330	372	96	65	73	133
7	204	341	865	105	68	1170	1010	331	114	96	73	118
8	211	327	1010	100	68	795	800	274	114	176	70	94
9	2000	280	620	98	67	614	654	289	183	161	64	76
10	1990	277	636	96	67	548	557	369	518	122	64	61
11	1140	268	330	95	67	531	497	424	452	92	78	49
12	746	296	283	93	66	501	440	355	274	87	70	42
13	535	262	254	92	66	975	394	283	190	94	65	41
14	466	229	229	90	66	2040	358	242	152	89	64	47
15	402	221	200	88	66	1570	324	211	131	76	62	48
16	338	213	195	86	66	1030	295	195	114	67	57	72
17	295	205	193	86	66	726	276	185	100	64	82	190
18	265	200	190	83	65	614	259	183	104	61	108	178
19	245	200	178	81	64	548	251	205	271	55	96	237
20	372	198	183	80	64	685	237	195	211	61	76	226
21	1290	198	205	78	64	432	226	178	157	62	82	190
22	1020	185	190	77	64	890	210	161	126	155	91	169
23	717	173	169	76	70	1740	274	150	102	129	87	157
24	566	166	159	76	130	1360	1270	141	87	89	73	183
25	583	161	150	75	735	950	1580	135	87	87	64	753
26	860	161	145	74	835	775	1000	129	102	102	55	1290
27	699	166	160	74	762	699	744	118	94	89	50	1170
28	540	171	160	73	1060	730	583	110	87	73	49	686
29	448	203	135	72	---	930	460	109	85	62	47	436
30	387	193	139	72	---	1330	390	102	76	59	47	292
31	939	---	130	71	---	1140	---	100	---	57	64	---
TOTAL	18567	7921	7816	2769	5063	29383	20036	7075	4532	2642	2165	7256
MEAN	598	264	252	89.3	181	948	668	228	151	85.2	69.8	242
MAX	2000	610	1010	125	1060	2110	1580	424	518	176	108	1290
MIN	204	161	130	71	64	432	210	100	76	55	47	41
CFSM	5.07	2.24	2.14	.76	1.53	8.03	5.66	1.93	1.28	.72	.59	2.05
IN.	5.84	2.50	2.46	.87	1.60	9.26	6.32	2.23	1.43	.83	.68	2.29

CAL YR 1976 TOTAL 114679 MEAN 313 MAX 3840 MIN 62 CFSM 2.65 IN 36.15
WTR YR 1977 TOTAL 115201 MEAN 316 MAX 2110 MIN 41 CFSM 2.68 IN 36.32

01447720 TOBYHANNA CREEK NEAR BLAKESLEE, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--January 1976 to current year.

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, NOVEMBER 1976 TO AUGUST 1977

DATE	TIME	CODE FOR AGENCY COLLECTING SAMPLE	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)
NOV											
09...	1515	9813	277	80	7.7	9.0	4	11.0	30	--	0
FEB											
24...	1235	9813	124	60	5.8	2.0	1	--	20	0	0
AUG											
22...	1200	9813	106	40	6.7	14.0	5	11.0	10	--	0

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	TOTAL FILTRABLE RESIDUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
NOV											
09...	4.5	3.0	26	8.0	9.0	--	.52	.02	.06	.03	880
FEB											
24...	5.5	1.5	12	5.0	11	60	.66	.03	.16	.05	150
AUG											
22...	3.1	.5	18	8.0	8.0	36	.62	.02	.08	.04	440

01447800 LEHIGH RIVER BELOW FRANCIS E. WALTER LAKE NEAR WHITE HAVEN, PA

LOCATION.--Lat 41°06'17", long 75°43'57", Luzerne County, Hydrologic Unit 02040106, on right bank 0.7 mi (1.1 km) downstream from Francis E. Walter Lake, 2.0 mi (3.2 km) upstream from Fawn Run, and 4 mi (6.4 km) northeast of White Haven.

DRAINAGE AREA.--290 mi² (751 km²).

PERIOD OF RECORD.--October 1957 to current year. Prior to October 1962 published as "below Bear Creek Reservoir", October 1962 to September 1971 published as "below Francis E. Walter Reservoir".

GAGE.--Water-stage recorder. Datum of gage is 1,212.95 ft (369.707 m) above mean sea level (levels by Corps of Engineers).

REMARKS.--Records good. Flow regulated by Francis E. Walter Lake 0.7 mi (1.1 km) upstream since February 1961 (see p. 98).

AVERAGE DISCHARGE.--20 years, 603 ft³/s (17.08 m³/s), 28.24 in/yr (717 mm/yr), adjusted for storage since February 1961.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,800 ft³/s (391 m³/s) Dec. 21, 1957, gage height, 9.85 ft (3.002 m), from rating curve extended above 6,100 ft³/s (170 m³/s); minimum, 1.3 ft³/s (0.037 m³/s) Nov. 14, 1961, result of shutoff at lake; minimum gage height, 1.86 ft (0.567 m) Sept. 16, 1964; minimum daily discharge, 22 ft³/s (0.62 m³/s) July 20-23, 1965.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge known, 54,200 ft³/s (1,530 m³/s) Aug. 19, 1955, based on slope-area measurement at site 4.9 mi (7.9 km) downstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,000 ft³/s (113 m³/s) Oct. 14, gage height, 6.47 ft (1.972 m); minimum, 65 ft³/s (1.84 m³/s) Sept. 4, 5, gage height, 2.62 ft (0.799 m); minimum daily, 66 ft³/s (1.87 m³/s) Sept. 5-8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	469	1300	310	260	200	1740	2970	861	189	144	133	169
2	527	1630	300	263	190	1940	2100	878	192	144	136	150
3	533	1110	300	259	190	2080	2250	878	195	144	136	122
4	789	911	290	254	210	2060	1930	861	195	144	138	72
5	859	720	280	250	266	1560	1630	708	227	144	139	66
6	766	595	280	255	438	2570	3240	878	250	142	139	66
7	504	782	800	250	394	2860	3530	746	246	144	139	66
8	502	863	2070	250	370	3070	2630	746	247	182	142	66
9	636	750	1440	250	328	3510	1460	852	249	324	141	67
10	1330	655	882	250	172	3000	1140	994	907	333	189	283
11	2170	620	680	240	162	1800	1130	1180	1060	248	244	398
12	2160	588	683	240	156	1140	931	722	687	203	204	167
13	3000	554	652	240	156	1180	852	502	448	205	182	127
14	3750	546	552	236	413	1250	852	818	315	206	139	126
15	2120	414	445	209	347	2320	685	794	292	206	139	88
16	956	300	419	210	258	2600	566	566	221	336	139	112
17	940	307	404	210	230	3120	572	399	190	195	198	301
18	1050	380	405	210	210	2060	566	404	192	158	250	326
19	1130	421	404	210	188	1250	566	540	526	101	220	463
20	800	420	404	210	188	1220	484	552	696	75	196	481
21	1280	418	387	210	202	1180	319	454	566	77	196	409
22	1800	415	347	210	210	870	258	383	303	202	195	410
23	1800	410	320	210	230	913	423	284	134	285	172	460
24	1760	352	300	210	290	1540	2440	288	173	233	144	502
25	1710	300	290	210	581	1560	1870	292	199	196	144	861
26	1700	300	280	205	810	1560	2380	292	277	164	144	1340
27	1700	301	260	205	852	1560	2300	291	242	166	144	2420
28	1650	304	242	205	1180	1750	2160	287	242	209	144	3080
29	1360	307	250	205	---	2320	1410	287	215	231	119	1760
30	935	310	250	200	---	3340	794	231	163	204	77	1240
31	940	---	260	200	---	3640	---	186	---	137	133	---
TOTAL	41626	17283	15186	7026	9421	62563	44438	18154	10038	5882	4955	16198
MEAN	1343	576	490	227	336	2018	1481	586	335	190	160	540
MAX	3750	1630	2070	263	1180	3640	3530	1180	1060	336	250	3080
MIN	469	300	242	200	156	870	258	186	134	75	77	66
MEAN≠	1370	553	486	223	351	1955	1419	578	335	190	160	562
CFSM≠	4.72	1.91	1.68	.77	1.21	6.74	4.89	1.99	1.16	.66	.55	1.94
IN.≠	5.44	2.13	1.94	.89	1.26	7.77	5.46	2.29	1.29	.76	.63	2.16

CAL YR 1976 TOTAL 255975 MEAN 699 MAX 4390 MIN 128 MEAN≠ 699 CFSM≠ 2.41 IN.≠ 32.84
WTR YR 1977 TOTAL 252770 MEAN 693 MAX 3750 MIN 66 MEAN≠ 693 CFSM≠ 2.39 IN.≠ 32.42

≠ Adjusted for change in contents in Francis E. Walter Lake.

01448500 DILLDOWN CREEK NEAR LONG POND, PA

LOCATION.--Lat 41°02'08", long 75°32'37", Monroe County, Hydrologic Unit 02040106, on left bank 60 ft (18 m) upstream from bridge on Shucks Mill Road, 2.8 mi (4.5 km) upstream from Mud Run, 4 mi (6 km) northeast of Albrightsville, and 4.4 mi (7.1 km) west of Long Pond.

DRAINAGE AREA.--2.39 mi^2 (6.19 km^2).

PERIOD OF RECORD.--October 1948 to current year.

REVISED RECORDS.--WSP 1392: 1949(M), 1950-53.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,665.07 ft (507.513 m) above mean sea level.

REMARKS.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--29 years, 4.86 ft^3/s (0.138 m^3/s), 27.61 in/yr (701 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 630 ft^3/s (17.8 m^3/s) June 14, 1969, gage height, 3.995 ft (1.218 m), from rating curve extended above 300 ft^3/s (8.50 m^3/s) on basis of culvert and flow-over-dam computations of peak flow; minimum, 0.10 ft^3/s (0.003 m^3/s) Dec. 10, 1964, gage height, 0.55 ft (0.168 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 50 ft^3/s (1.42 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	(m^3/s)	Gage height (ft)	(m)	Date	Time	Discharge (ft^3/s)	(m^3/s)	Gage height (ft)	(m)
Oct. 20	2400	63	1.78	2.28	0.695	Mar. 13	1409	73	2.07	2.34	0.713
Dec. 7	1100	62	1.76	2.27	0.692	Mar. 22	1600	*105	2.97	*2.52	0.768
Mar. 4	2100	99	2.80	2.49	0.759						

Minimum discharge, 0.52 ft^3/s (0.015 m^3/s) Sept. 11, gage height, 0.94 ft (0.287 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	9.6	2.5	2.0	1.0	5.4	8.8	4.0	1.9	1.2	1.0	.78
2	2.9	8.0	2.6	1.9	1.0	4.5	15	4.0	1.9	1.2	.92	.70
3	5.5	7.8	2.4	1.9	1.0	4.2	25	3.9	1.6	1.1	1.3	.74
4	3.4	7.8	2.3	1.9	1.1	27	12	4.0	1.6	1.0	.97	.62
5	3.0	7.0	2.3	1.9	1.1	35	22	5.6	1.6	1.0	.82	.70
6	3.1	6.8	2.2	1.8	1.0	14	17	4.3	2.0	1.6	.97	4.0
7	2.9	7.0	25	1.7	.98	9.4	12	3.8	2.2	1.9	1.0	.82
8	4.9	6.5	8.2	1.7	.95	8.0	11	3.5	1.6	3.6	.82	.70
9	20	5.5	4.5	1.7	.94	7.4	8.8	4.2	8.8	1.2	.74	.66
10	14	5.4	4.2	1.9	.97	7.0	8.2	6.1	6.1	1.1	1.1	.66
11	11	5.0	4.2	1.7	1.1	6.3	7.4	4.5	2.4	1.1	.92	.59
12	8.9	4.6	4.2	1.6	1.2	6.1	7.0	3.6	1.9	1.4	.78	.56
13	8.2	4.5	4.0	1.5	1.6	35	6.5	3.5	1.7	1.4	.97	.59
14	8.1	4.3	3.3	1.5	1.2	31	5.9	3.2	1.7	1.0	.87	.70
15	6.8	4.2	3.3	1.5	1.1	15	5.4	3.0	1.6	.92	.78	.59
16	6.2	3.9	3.4	1.4	.97	12	5.0	2.9	1.4	1.0	.74	2.4
17	5.6	3.8	3.3	1.4	.92	9.9	4.6	2.8	1.5	1.2	3.0	2.0
18	5.2	3.9	3.1	1.3	.90	9.1	4.5	2.8	1.6	1.2	1.1	.92
19	5.0	3.8	3.0	1.3	.87	9.1	4.3	2.9	1.9	.92	.78	1.6
20	14	3.6	3.2	1.3	.86	7.7	3.9	2.6	1.6	1.1	.74	1.2
21	27	3.4	3.4	1.3	.87	7.7	3.8	2.5	1.8	1.2	.70	1.0
22	11	3.2	2.8	1.2	.87	39	3.8	2.3	1.4	1.1	.92	1.3
23	8.8	3.0	2.7	1.2	1.1	25	4.6	2.2	1.4	.87	.74	1.2
24	9.2	3.0	2.6	1.2	4.5	13	14	2.2	1.4	.82	.74	2.9
25	11	3.0	2.4	1.1	11	11	9.4	2.1	1.7	1.4	.70	10
26	15	2.9	2.5	1.1	4.5	9.9	6.7	2.0	1.8	.97	.66	19
27	9.1	3.0	2.4	1.1	6.3	11	6.7	1.9	1.5	.82	.65	7.2
28	8.0	2.9	2.4	1.0	9.6	13	5.4	1.8	1.6	.82	.70	5.2
29	7.5	3.8	2.3	1.2	---	11	4.6	1.9	1.6	.82	.64	4.3
30	7.2	4.0	2.1	1.0	---	13	4.3	1.9	1.4	.87	.66	3.9
31	17	---	2.0	1.1	---	11	---	1.9	---	.78	1.0	---
TOTAL	272.5	145.2	118.8	45.4	59.50	427.7	257.6	97.9	62.2	36.61	28.46	77.53
MEAN	8.79	4.84	3.83	1.46	2.13	13.8	8.59	3.16	2.07	1.18	.92	2.58
MAX	27	9.6	25	2.0	11	39	25	6.1	8.8	3.6	3.0	19
MIN	2.9	2.9	2.0	1.0	.86	4.2	3.8	1.8	1.4	.78	.66	.56
CFSM	3.68	2.03	1.60	.61	.89	5.77	3.59	1.32	.87	.49	.39	1.08
IN.	4.24	2.26	1.85	.71	.93	6.65	4.01	1.52	.97	.57	.44	1.21

CAL YR 1976 TOTAL 2034.10 MEAN 5.56 MAX 95 MIN 1.2 CFSM 2.33 IN 31.65
WTR YR 1977 TOTAL 1629.40 MEAN 4.46 MAX 39 MIN .56 CFSM 1.87 IN 25.35

01449360 POHOPOCO CREEK AT KRESGEVILLE, PA

LOCATION.--Lat 40°53'51", long 75°30'10", Monroe County, Hydrologic Unit 02040106, on right bank 20 ft (6 m) downstream from bridge on U.S. Highway 209 at Kresgeville, 0.2 mi (0.3 km) downstream from Middle Creek, and 13 mi (21 km) northeast of Lehighton.

DRAINAGE AREA.--49.9 mi^2 (129.2 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 659.72 ft (201.083 m) above mean sea level.

REMARKS.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--11 years, 108 ft^3/s (3.059 m^3/s) 29.39 in/yr (747 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,080 ft^3/s (58.9 m^3/s) July 28, 1969, gage height, 9.21 ft (2.807 m), from rating curve extended above 800 ft^3/s (23 m^3/s); minimum, 16 ft^3/s (0.45 m^3/s) Oct. 9, 10, 1970, gage height, 2.86 ft (0.872 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft^3/s (14.2 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Oct. 9	2215	552	15.6	5.78	1.762
Feb. 25	0015	678	19.2	6.21	1.893
Mar. 5	0615	1,010	28.6	7.13	2.173
Mar. 14	0030	536	15.2	5.72	1.743
Mar. 22	2030	*1,480	41.9	*7.99	2.435

Minimum discharge, 20 ft^3/s (0.57 m^3/s) Sept. 10, 15, 16, gage height, 2.88 ft (0.878 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59	208	63	57	27	197	168	102	53	32	22	24
2	59	186	63	56	27	167	275	100	50	31	24	24
3	116	180	59	55	26	146	339	98	41	29	41	23
4	102	175	62	54	26	418	254	98	43	29	33	22
5	86	163	59	53	26	856	417	120	46	29	27	21
6	83	152	57	52	25	478	411	104	45	30	26	22
7	80	141	242	51	25	331	347	94	46	34	33	22
8	88	132	219	50	25	262	296	87	42	43	30	21
9	416	123	154	49	25	219	249	98	75	33	26	21
10	468	119	137	48	24	191	220	95	85	30	25	21
11	305	113	127	47	24	172	198	86	52	29	25	21
12	232	106	119	46	23	157	180	82	48	35	24	20
13	194	101	111	45	27	326	166	80	45	34	32	20
14	180	98	99	43	30	456	154	74	42	29	30	21
15	155	94	92	42	27	353	143	74	41	28	26	20
16	138	89	88	41	25	285	135	75	40	27	24	26
17	125	87	86	40	23	237	127	73	39	29	38	43
18	115	86	83	39	24	224	120	71	39	29	32	26
19	107	83	79	38	28	221	115	71	39	27	26	24
20	159	80	78	37	27	194	113	64	39	32	24	29
21	322	78	79	36	25	182	109	63	43	27	23	28
22	234	75	74	35	23	606	105	61	37	30	28	26
23	199	73	70	34	34	1070	104	57	38	25	24	27
24	191	72	66	34	50	583	178	57	32	25	23	49
25	202	71	65	33	551	419	152	56	41	25	24	133
26	226	69	66	32	273	334	125	54	45	26	23	160
27	195	68	64	32	230	287	127	52	35	24	24	125
28	187	67	63	31	248	254	117	52	38	23	24	93
29	176	77	61	30	---	228	111	50	37	23	24	79
30	164	66	60	29	---	203	107	50	33	24	23	69
31	238	---	58	28	---	186	---	49	---	24	24	---
TOTAL	5601	3232	2803	1297	1948	10242	5662	2347	1329	895	832	1260
MEAN	181	108	90.4	41.8	69.6	330	189	75.7	44.3	28.9	26.8	42.0
MAX	468	208	242	57	551	1070	417	120	85	43	41	160
MIN	59	66	57	28	23	146	104	49	32	23	22	20
CFSM	3.63	2.16	1.81	.84	1.40	6.61	3.79	1.52	.89	.58	.54	.84
IN.	4.18	2.41	2.09	.97	1.45	7.64	4.22	1.75	.99	.67	.62	.94

CAL YR 1976 TOTAL 43668 MEAN 119 MAX 1540 MIN 35 CFSM 2.39 IN 32.55
WTR YR 1977 TOTAL 37448 MEAN 103 MAX 1070 MIN 20 CFSM 2.06 IN 27.92

01449360 POHOPOCO CREEK AT KRESGEVILLE, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1968 to September 1970, May 1971 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 31.5°C July 25, 1970; minimum, freezing point Feb. 20, 21, 23, 1972, Jan. 14, 1974.

TEMPERATURE (C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	9.5	7.0	8.0	---	---	---	---	---	---
2	---	---	---	8.0	5.5	6.5	---	---	---	---	---	---
3	---	---	---	8.0	7.5	8.0	---	---	---	---	---	---
4	---	---	---	9.0	8.0	8.5	---	---	---	1.0	.0	.5
5	---	---	---	8.5	6.5	7.5	---	---	---	.5	.0	.5
6	12.5	12.5	12.5	7.5	5.5	6.5	---	---	---	1.0	.0	.0
7	13.0	12.5	12.5	7.5	5.5	6.5	---	---	---	.5	.0	.0
8	14.0	13.0	13.5	7.5	5.0	6.0	---	---	---	.5	.0	.0
9	15.5	14.0	15.0	5.0	3.0	4.0	---	---	---	.5	.0	.0
10	14.0	11.5	12.5	6.0	4.5	5.0	---	---	---	.5	.0	.0
11	11.5	10.0	11.0	6.0	5.0	5.5	---	---	---	.5	.0	.5
12	11.5	9.0	10.0	5.5	4.5	5.0	---	---	---	.5	.0	.5
13	11.5	9.0	10.5	5.0	3.5	4.5	---	---	---	.5	.0	.0
14	11.5	10.5	11.0	5.5	3.5	4.5	---	---	---	.0	.0	.0
15	11.5	9.0	10.0	5.0	3.5	4.5	---	---	---	.0	.0	.0
16	11.5	10.5	11.0	5.0	3.5	4.5	---	---	---	.0	.0	.0
17	10.0	9.0	9.5	5.0	3.0	4.5	3.5	3.0	3.0	.5	.0	.0
18	8.5	7.5	8.0	---	---	---	4.0	3.0	3.0	.5	.0	.0
19	8.0	6.0	7.0	5.0	4.5	5.0	3.0	2.0	2.5	.0	.0	.0
20	11.5	8.0	9.0	4.5	4.0	4.0	4.5	3.0	3.5	.5	.0	.0
21	11.5	10.0	11.0	4.0	2.5	3.5	4.5	1.5	3.0	.0	.0	.0
22	10.0	8.5	9.0	3.0	2.0	2.5	2.5	1.0	1.5	.0	.0	.0
23	8.5	7.0	7.5	3.0	2.0	2.0	2.0	1.0	1.5	.0	.0	.0
24	10.0	7.5	8.0	2.5	2.0	2.0	2.0	1.0	1.5	.0	.0	.0
25	10.0	9.0	9.5	2.5	2.0	2.0	1.5	.5	1.0	.5	.0	.0
26	10.5	8.0	9.5	4.0	2.0	2.5	2.0	1.0	1.5	.5	.0	.0
27	7.5	6.0	6.5	6.0	4.0	4.5	---	---	---	.5	.0	.0
28	6.5	4.5	5.5	6.5	5.0	5.5	---	---	---	.5	.0	.0
29	8.0	5.0	6.5	6.5	3.0	5.0	---	---	---	.5	.0	.0
30	8.0	6.0	7.0	---	---	---	---	---	---	.0	.0	.0
31	9.5	8.0	8.5	---	---	---	---	---	---	.0	.0	.0
MONTH	15.5	4.5	9.5	9.5	2.0	5.0	4.5	.5	2.0	1.0	.0	.0

01449360 POHOPOCO CREEK AT KRESGEVILLE, PA--Continued

TEMPERATURE (C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	.0	.0	.0	4.0	2.0	3.0	10.0	7.0	8.5	13.0	11.5	12.0
2	.0	.0	.0	3.5	2.0	3.0	7.5	6.0	6.5	12.5	11.5	12.0
3	.0	.0	.0	4.5	2.0	3.5	11.0	6.5	8.5	12.5	11.5	12.0
4	.5	.0	.0	4.0	1.5	3.0	8.0	6.0	7.0	12.0	11.5	12.0
5	.5	.0	.0	5.5	3.0	4.0	7.0	6.0	6.5	12.5	11.5	12.0
6	.5	.0	.5	6.0	4.0	5.0	7.5	5.5	6.5	12.0	11.5	12.0
7	.5	.0	.0	5.5	3.5	4.5	7.5	4.5	6.0	12.0	11.5	11.5
8	.5	.0	.0	6.0	3.5	4.5	8.5	6.5	7.0	12.5	11.5	11.5
9	---	---	---	7.5	3.5	5.5	8.5	4.5	6.5	12.0	11.5	12.0
10	---	---	---	8.5	4.5	6.5	10.0	4.5	7.0	12.0	11.5	12.0
11	---	---	---	9.0	5.5	7.5	12.0	7.0	9.5	12.5	11.5	11.5
12	1.5	.5	1.0	8.5	5.5	7.5	14.5	9.0	12.0	12.5	11.5	11.5
13	2.0	1.0	1.5	8.5	6.0	7.5	15.0	10.5	12.5	12.0	11.5	11.5
14	2.0	.5	1.0	8.5	7.5	8.0	14.0	12.0	13.0	12.5	11.5	11.5
15	1.5	.5	1.0	9.5	7.0	8.0	13.5	8.5	11.0	12.0	11.5	11.5
16	1.0	.0	.5	9.0	7.0	8.0	12.5	9.0	11.0	12.5	11.5	11.5
17	.5	.0	.5	7.5	5.5	6.5	13.5	9.0	10.5	12.5	11.5	11.5
18	1.0	.0	.0	6.0	2.5	4.0	13.5	8.5	11.0	16.5	11.0	14.0
19	1.5	.5	.5	6.0	2.5	4.5	14.5	10.0	12.0	16.0	14.0	15.0
20	1.0	.0	.5	4.5	3.0	4.0	13.5	11.0	12.0	16.5	14.0	15.5
21	1.0	.0	.5	7.0	3.0	5.0	14.0	10.0	12.5	16.5	14.0	15.5
22	1.0	.0	.5	5.5	3.0	4.0	16.0	11.5	14.0	17.0	14.0	15.5
23	2.5	.5	1.5	4.5	2.5	3.5	16.0	15.0	15.5	17.0	14.0	15.5
24	4.0	1.0	2.0	5.5	3.0	4.0	15.5	11.5	12.5	17.0	15.0	16.0
25	1.5	.5	1.0	5.0	2.5	3.5	13.0	11.5	12.0	17.0	15.0	16.0
26	3.0	1.0	2.0	6.0	2.5	4.5	12.0	11.5	12.0	17.5	14.5	16.0
27	4.0	2.5	3.0	8.0	4.0	6.0	12.5	12.0	12.0	16.5	13.5	15.5
28	4.0	2.5	3.0	7.0	6.0	6.5	12.0	12.0	12.0	17.5	14.0	16.0
29	---	---	---	11.0	6.5	8.5	12.5	11.5	12.0	17.5	15.0	16.0
30	---	---	---	13.0	9.0	11.0	12.5	11.5	12.0	16.0	13.5	14.5
31	---	---	---	11.5	8.5	10.5	---	---	---	14.5	12.5	14.0
MONTH	4.0	.0	1.0	13.0	1.5	5.5	16.0	4.5	10.5	17.5	11.0	13.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	14.0	13.0	13.5	19.5	18.0	18.5	19.0	14.5	16.5			
2	16.5	13.0	15.0	20.5	18.0	19.0	19.0	16.5	18.0			
3	---	---	---	20.0	17.0	18.5	20.0	17.0	18.0			
4	---	---	---	21.5	18.5	19.5	19.5	16.0	17.0			
5	---	---	---	19.5	18.0	18.5	19.0	17.0	18.0			
6	---	---	---	23.0	18.5	21.0	17.5	15.0	16.0			
7	---	---	---	23.5	18.5	21.0	16.5	15.0	15.5			
8	---	---	---	24.0	20.0	22.0	17.0	13.5	15.0			
9	---	---	---	24.5	21.0	22.5	15.5	---	---			
10	---	---	---	---	---	---	---	---	---			
11	15.5	13.0	14.5	---	---	---	---	---	---			
12	17.0	14.5	16.0	---	---	---	---	---	---			
13	17.0	14.0	15.0	---	---	---	---	---	---			
14	18.0	15.0	16.5	---	---	---	---	---	---			
15	20.5	15.5	17.0	---	---	---	---	---	---			
16	20.5	16.0	18.0	---	---	---	---	---	---			
17	16.5	15.0	16.0	---	---	---	---	---	---			
18	17.0	13.5	15.5	---	---	---	---	---	---			
19	18.0	14.0	16.0	---	---	---	---	---	---			
20	18.0	15.0	16.5	---	---	---	---	---	---			
21	16.5	15.0	16.0	---	---	---	---	---	---			
22	18.0	15.0	17.0	22.5	16.5	20.5	---	---	---			
23	19.5	16.0	18.0	20.5	16.5	19.0	---	---	---			
24	18.0	17.0	17.5	19.0	15.5	17.5	---	---	---			
25	20.5	17.0	18.5	18.5	14.0	16.5	---	---	---			
26	20.5	17.0	18.5	17.0	13.5	15.5	---	---	---			
27	20.0	18.0	18.5	16.5	14.0	15.5	---	---	---			
28	20.0	17.0	18.5	16.5	15.5	16.0	---	---	---			
29	19.5	15.5	17.5	19.0	15.0	16.5	---	---	---			
30	19.5	16.5	18.0	19.5	15.5	17.5	---	---	---			
31	---	---	---	19.5	15.0	16.0	---	---	---			
MONTH	20.5	13.0	16.5	24.5	13.5	19.5	20.0	13.5	17.0			

01449500 WILD CREEK AT HATCHERY, PA

LOCATION.--Lat 40°55'22", long 75°33'32", Carbon County, Hydrologic Unit 02040106, on left bank at Hatchery, 0.5 mi (0.8 km) downstream from Penn Forest Dam, 2.2 mi (3.5 km) upstream from Wild Creek Dam, 4 mi (6 km) upstream from mouth, and 9.5 mi (15.3 km) northeast of Palmerton.

DRAINAGE AREA.--16.8 mi² (43.5 km²).

PERIOD OF RECORD.--October 1940 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 1051: Drainage area. WSP 1382: 1941-42, 1943(M), 1944-45, 1947, 1949, 1951-53.

GAGE.--Water-stage recorder. Datum of gage is 842.71 ft (256.858 m) above mean sea level.

REMARKS.--Records good except those for winter periods, which are fair. Flow completely regulated since January 1959 by Penn Forest Reservoir 0.5 mi (0.8 km) upstream (see p. 98).

AVERAGE DISCHARGE.--37 years, 35.8 ft³/s (1,014 m³/s), 28.94 in/yr (735 mm/yr), adjusted for storage since January 1959.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,360 ft³/s (66.8 m³/s) May 23, 1942, gage height, 6.00 ft (1.829 m), from rating curve extended above 220 ft³/s (6.2 m³/s) on basis of contracted-opening measurement at gage height 5.59 ft (1.704 m); minimum, 1.0 ft³/s (0.028 m³/s) Aug. 3-6, Oct. 2, 1958, Oct. 24, 1969, result of regulation.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 367 ft³/s (10.4 m³/s) Mar. 22, gage height, 3.43 ft (1.045 m); minimum, 2.6 ft³/s (0.074 m³/s) Aug. 18, Sept. 18, gage height, 1.42 ft (0.433 m); minimum daily, 4.3 ft³/s (0.12 m³/s) Sept. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	88	25	19	13	76	77	45	41	29	19	40
2	41	69	27	18	13	76	84	44	41	41	7.9	40
3	42	66	24	18	13	74	121	47	44	41	10	40
4	41	66	22	18	13	44	100	43	41	41	13	40
5	44	64	22	18	14	23	123	50	41	41	13	40
6	28	59	22	18	14	14	127	48	41	41	13	40
7	30	57	59	21	13	19	111	46	41	42	25	40
8	25	56	64	19	13	57	102	42	41	42	35	40
9	23	48	47	18	14	71	88	50	43	42	37	40
10	15	48	40	21	12	77	82	48	42	27	39	40
11	10	47	36	20	12	73	76	38	23	17	42	40
12	8.6	45	34	19	12	67	73	35	12	21	42	40
13	7.9	43	43	18	12	96	67	39	12	31	39	40
14	7.2	41	25	18	12	159	64	35	14	42	39	40
15	6.3	37	26	19	12	129	57	31	29	46	39	40
16	6.0	37	27	18	12	111	54	30	38	47	39	41
17	5.4	34	27	17	11	95	50	31	38	47	40	17
18	5.4	35	27	17	24	90	47	33	39	41	20	17
19	5.4	35	26	16	54	90	47	34	39	39	30	37
20	24	32	26	16	71	76	44	32	39	41	40	39
21	45	30	27	15	71	71	43	31	39	41	40	40
22	62	33	25	14	71	152	42	30	39	41	41	40
23	69	27	24	14	71	294	42	29	39	41	40	40
24	74	23	23	14	71	202	61	28	39	41	40	40
25	82	24	23	15	74	152	71	27	37	42	40	41
26	90	25	24	15	74	120	63	27	39	42	40	22
27	79	26	23	14	74	107	59	25	41	42	40	4.3
28	71	27	23	14	74	103	56	23	46	42	40	14
29	69	31	22	14	---	100	50	22	27	42	40	35
30	66	29	21	14	---	93	46	20	12	42	40	37
31	85	---	20	14	---	88	---	32	---	42	40	---
TOTAL	1208.2	1282	904	523	944	2999	2127	1095	1057	1217	1022.9	1064.3
MEAN	39.0	42.7	29.2	16.9	33.7	96.7	70.9	35.3	35.2	39.3	33.0	35.5
MAX	90	88	64	21	74	294	127	50	46	47	42	41
MIN	5.4	23	20	14	11	14	42	20	12	17	7.9	4.3
MEAN≠	74.9	40.2	28.4	16.9	13.6	114	69.1	33.5	22.8	13.9	9.7	13.3
CFSM≠	4.46	2.39	1.69	1.01	1.11	6.79	4.11	1.99	1.36	.83	.58	.79
IN.≠	5.14	2.67	1.95	1.16	1.16	7.83	4.59	2.29	1.52	.96	.67	.88

CAL YR 1976 TOTAL 14995.2 MEAN 41.0 MAX 280 MIN 5.4 MEAN≠ 41.0 CFSM≠ 2.44 IN.≠ 33.20
WTR YR 1977 TOTAL 15443.4 MEAN 42.3 MAX 294 MIN 4.3 MEAN≠ 42.3 CFSM≠ 2.52 IN.≠ 34.19

≠ Adjusted for change in Penn Forest Reservoir.

01449800 POHOPOCO CREEK BELOW BELTZVILLE DAM NEAR PARRYVILLE, PA

LOCATION.--Lat 40°50'44", long 75°38'46", Carbon County, Hydrologic Unit 02040106, on right bank 0.1 mi (0.2 km) upstream from Sawmill Run, 0.45 mi (0.72 km) downstream from Beltzville Dam, 1.3 mi (2.1 km) upstream from Bull Run, and 2.3 mi (3.7 km) northeast of Parryville.

DRAINAGE AREA.--96.4 mi^2 (249.7 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1967 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 492.05 ft (149.977 m) above mean sea level.

REMARKS.--Records good. Flow regulated by Wild Creek and Penn Forest Reservoirs 7.3 mi (11.7 km) and 10.0 mi (16.1 km) upstream, respectively, and Beltzville Lake 0.45 mi (0.72 km) upstream (see p. 98). Figures of daily discharge do not include diversion from Wild Creek Reservoir to city of Bethlehem. Diversion from Tunkhannock Creek to Wild Creek basin above station since October 1969.

AVERAGE DISCHARGE.--10 years, 215 ft^3/s (6.089 m^3/s), 30.29 in/yr (777 mm/yr), adjusted for storage and diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,740 ft^3/s (49.3 m^3/s) May 8, 1973, gage height, 5.59 ft (1.704 m); minimum, 0.90 ft^3/s (0.025 m^3/s) Oct. 11, 12, 1969, gage height, 2.12 ft (0.646 m), result of upstream shutoff.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 844 ft^3/s (23.9 m^3/s) Mar. 24, gage height, 4.44 ft (1.353 m); minimum, 3.3 ft^3/s (0.093 m^3/s) Nov. 11, gage height, 2.21 ft (0.674 m); minimum daily, 43 ft^3/s (1.22 m^3/s) June 28 to July 4.

REVISIONS.--The adjusted monthly discharge for water year 1976 have been revised. The figures below supersede those published in the 1976 report.

	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
(/)	36.7	33.1	34.2	35.9	37.7	38.2	40.0	39.0	41.7	40.3	41.2	40.5
MEAN≠	306	301	310	409	351	205	231	266	167	154	134	93.4
CFSM≠	3.17	3.12	3.22	4.24	3.64	2.13	2.40	2.76	1.73	1.60	1.39	.97
IN.≠	3.66	3.48	3.71	4.89	3.79	2.46	2.68	3.18	1.93	1.84	1.60	1.08

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	81	620	105	108	51	108	600	167	63	43	50	50
2	81	620	69	107	50	135	403	167	65	43	50	50
3	81	615	48	105	50	213	405	167	63	43	50	50
4	115	614	48	105	50	299	328	167	62	43	50	50
5	135	614	48	105	50	304	169	167	62	46	50	50
6	151	614	48	105	50	300	447	179	64	50	50	50
7	160	614	51	105	50	352	651	190	65	50	51	50
8	160	614	50	105	50	401	647	190	64	50	50	50
9	162	419	50	105	73	597	646	172	65	50	50	50
10	178	197	50	105	108	797	646	164	65	50	50	50
11	305	90	50	105	108	797	734	164	65	50	50	50
12	396	105	50	105	108	792	820	163	65	50	50	50
13	396	105	50	105	108	800	815	161	65	50	50	50
14	392	105	50	92	108	804	811	160	65	49	50	112
15	392	105	50	78	108	801	448	151	65	50	50	254
16	392	105	50	78	108	798	163	128	65	50	50	255
17	392	105	50	78	108	795	163	114	65	50	50	254
18	392	105	50	78	108	561	163	113	65	50	50	254
19	392	105	50	78	108	397	163	113	65	50	50	156
20	319	105	50	78	108	397	163	110	65	50	50	50
21	108	105	50	78	108	397	163	108	65	50	50	48
22	229	105	50	78	108	286	163	108	65	49	50	48
23	290	105	50	78	108	242	164	108	65	49	50	48
24	292	105	50	78	108	665	167	96	52	50	50	48
25	291	105	50	78	108	843	167	81	45	50	50	49
26	364	105	50	78	108	839	167	82	45	50	50	49
27	397	105	50	78	108	834	167	70	44	50	50	52
28	536	105	50	78	108	833	167	62	43	50	50	54
29	623	105	50	78	---	830	167	62	43	50	50	54
30	620	105	78	78	---	827	167	62	43	50	50	53
31	621	---	105	63	---	825	---	62	---	50	50	---
TOTAL	9443	7626	1692	2773	2526	17869	11044	4008	1798	1515	1551	2488
MEAN	305	254	54.6	89.5	90.2	576	368	129	59.9	48.9	50.0	82.9
MAX	623	620	105	108	108	843	820	190	65	50	51	255
MIN	81	90	48	63	50	108	163	62	43	43	50	48
(/)	38.4	37.0	37.1	38.5	40.9	39.7	39.1	40.3	39.7	40.6	40.7	39.6
MEAN≠	382	211	172	86.3	143	669	381	153	92.6	51.9	51.6	79.8
CFSM≠	3.96	2.19	1.78	.90	1.48	6.94	3.95	1.59	.96	.54	.54	.83
IN.≠	4.56	2.44	2.05	1.04	1.54	8.00	4.41	1.83	1.07	.62	.62	.93

CAL YR 1976 TOTAL 70440 MEAN 192 MAX 941 MIN 48 MEAN≠ 231 CFSM≠ 2.40 IN.≠ 32.64
WTR YR 1977 TOTAL 64333 MEAN 176 MAX 843 MIN 43 MEAN≠ 197 CFSM≠ 2.04 IN.≠ 27.79

/ Diversion above station from Wild Creek Reservoir for municipal supply, equivalent in cubic feet per second, furnished by city of Bethlehem.

≠ Adjusted for diversion from Wild Creek Reservoir and change in contents.

01449800 POHOPOCO CREEK BELOW BELTZVILLE DAM NEAR PARRYVILLE, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1968 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 26.5°C on several days during July, August 1970; minimum, freezing point Dec. 9, 1969.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 18.0°C Jul. 3, 22; minimum, 1.5°C on several days during December and January.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	10.0	10.0	10.0	5.0	5.0	5.0	2.0	1.5	2.0
2	---	---	---	10.0	9.5	10.0	5.0	4.0	5.0	2.0	2.0	2.0
3	---	---	---	10.0	9.5	9.5	4.5	4.0	4.0	2.0	2.0	2.0
4	---	---	---	10.0	9.5	9.5	4.0	4.0	4.0	2.0	2.0	2.0
5	---	---	---	9.5	9.0	9.5	4.5	4.0	4.0	2.0	2.0	2.0
6	---	---	---	9.5	9.0	9.0	4.0	3.5	4.0	2.5	2.0	2.0
7	14.5	14.0	14.5	9.0	9.0	9.0	4.0	3.5	4.0	2.5	2.0	2.0
8	14.5	14.5	14.5	9.0	8.5	9.0	3.5	3.5	3.5	2.5	2.0	2.0
9	14.5	13.5	14.0	9.0	8.5	9.0	3.5	3.5	3.5	2.5	2.0	2.0
10	14.0	13.5	14.0	8.5	8.5	8.5	3.5	3.5	3.5	2.5	1.5	2.0
11	14.0	13.5	13.5	7.5	8.5	8.5	3.5	3.5	3.5	2.0	2.0	2.0
12	13.5	13.5	13.5	8.5	8.5	8.5	3.5	3.5	3.5	2.5	2.0	2.0
13	13.5	13.0	13.5	8.5	8.0	8.0	3.5	3.0	3.0	2.5	2.0	2.0
14	13.5	13.0	13.0	8.0	8.0	8.0	3.5	2.5	3.0	2.0	2.0	2.0
15	13.0	13.0	13.0	8.0	7.5	8.0	3.5	3.0	3.0	2.5	2.0	2.0
16	13.0	13.0	13.0	8.0	7.5	7.5	3.0	2.5	3.0	2.5	2.0	2.0
17	13.0	13.0	13.0	7.5	7.0	7.5	3.5	2.5	3.0	2.0	2.0	2.0
18	13.0	12.5	13.0	7.5	7.0	7.0	3.0	3.0	3.0	2.0	2.0	2.0
19	13.0	12.5	12.5	7.5	7.0	7.0	3.0	2.5	3.0	2.5	2.0	2.0
20	13.0	12.5	13.0	7.0	6.5	7.0	3.5	3.0	3.0	2.5	2.0	2.0
21	12.5	11.5	12.0	7.0	6.5	6.5	3.0	2.0	2.5	2.5	2.0	2.0
22	12.0	11.5	12.0	6.5	6.5	6.5	3.0	2.0	2.5	2.5	2.0	2.0
23	12.0	11.5	11.5	6.5	6.0	6.5	2.5	2.0	2.5	2.5	2.0	2.0
24	11.5	11.5	11.5	6.5	6.0	6.0	2.5	2.0	2.0	2.5	2.0	2.0
25	11.5	11.5	11.5	6.5	6.0	6.0	2.5	2.0	2.0	2.5	2.0	2.0
26	11.5	11.0	11.5	6.0	5.5	6.0	2.0	2.0	2.0	2.5	2.0	2.0
27	11.0	11.0	11.0	6.0	5.5	6.0	2.0	2.0	2.0	2.5	2.0	2.0
28	11.0	10.0	10.5	6.0	5.5	5.5	2.0	2.0	2.0	2.5	1.5	2.0
29	10.0	10.0	10.0	6.0	5.0	5.5	2.0	1.5	2.0	2.0	2.0	2.0
30	10.0	10.0	10.0	5.5	5.0	5.0	2.0	1.5	2.0	2.5	2.0	2.0
31	10.0	10.0	10.0	---	---	---	2.0	2.0	2.0	2.5	2.0	2.0
MONTH	14.5	10.0	12.5	10.0	5.0	7.5	5.0	1.5	3.0	2.5	1.5	2.0

01449800 POHOPOCO CREEK BELOW BELTZVILLE DAM NEAR PARRYVILLE, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	2.5	2.0	2.0	3.0	2.0	2.5	4.5	4.0	4.0	---	---	---
2	3.0	2.0	2.0	3.0	2.0	2.5	5.0	4.5	5.0	---	---	---
3	3.0	2.0	2.0	3.0	2.5	2.5	5.5	5.0	5.0	---	---	---
4	3.0	2.0	2.5	2.5	2.5	2.5	5.5	5.0	5.5	---	---	---
5	3.0	2.0	2.0	3.0	2.5	2.5	6.0	5.5	5.5	---	---	---
6	3.0	2.0	2.0	2.5	2.5	2.5	6.0	5.5	5.5	---	---	---
7	3.0	2.0	2.0	2.5	2.5	2.5	5.5	5.5	5.5	---	---	---
8	3.0	2.0	2.0	3.0	2.5	2.5	6.0	5.5	5.5	---	---	---
9	3.0	2.0	2.5	3.0	2.5	2.5	6.0	5.5	5.5	---	---	---
10	3.5	2.5	3.0	2.5	2.5	2.5	6.0	5.5	6.0	---	---	---
11	3.5	2.5	3.0	2.5	2.5	2.5	6.0	6.0	6.0	---	---	---
12	3.5	2.5	3.0	2.5	2.5	2.5	6.5	6.0	6.0	---	---	---
13	3.5	2.5	3.0	---	---	---	6.5	6.0	6.5	---	---	---
14	3.5	2.5	3.0	---	---	---	7.5	6.5	7.0	---	---	---
15	3.5	2.5	3.0	---	---	---	8.5	7.0	8.0	---	---	---
16	3.5	2.5	3.0	---	---	---	9.0	8.5	8.5	---	---	---
17	3.0	2.5	2.5	---	---	---	9.0	8.5	8.5	---	---	---
18	3.0	2.5	2.5	---	---	---	9.0	8.5	9.0	---	---	---
19	3.0	2.5	2.5	---	---	---	---	---	---	---	---	---
20	3.0	2.0	2.5	---	---	---	---	---	---	---	---	---
21	3.0	2.5	2.5	---	---	---	---	---	---	---	---	---
22	3.0	2.0	2.5	---	---	---	---	---	---	---	---	---
23	3.0	2.5	2.5	---	---	---	---	---	---	---	---	---
24	2.5	2.5	2.5	3.0	3.0	3.0	---	---	---	---	---	---
25	3.0	2.5	2.5	3.0	3.0	3.0	---	---	---	---	---	---
26	3.0	2.5	2.5	3.0	3.0	3.0	---	---	---	---	---	---
27	3.0	2.5	2.5	3.5	3.0	3.0	---	---	---	14.5	13.5	14.0
28	2.5	2.5	2.5	3.5	3.0	3.5	---	---	---	14.5	12.5	13.5
29	---	---	---	4.0	3.5	3.5	---	---	---	16.0	14.0	14.5
30	---	---	---	4.0	3.5	3.5	---	---	---	15.0	13.5	14.0
31	---	---	---	4.0	3.5	3.5	---	---	---	14.5	13.5	14.0
MONTH	3.5	2.0	2.5	4.0	2.0	3.0	9.0	4.0	6.5	16.0	12.5	14.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	14.0	13.5	14.0	16.5	15.5	16.5	---	---	---	14.5	14.0	14.0
2	14.5	13.5	14.0	17.0	16.0	16.5	---	---	---	15.5	14.0	14.5
3	15.0	13.5	14.0	18.0	16.0	17.0	---	---	---	15.5	14.0	14.5
4	14.5	13.5	14.0	17.5	16.0	16.5	---	---	---	15.5	14.0	14.5
5	14.5	13.5	14.0	17.5	15.0	16.5	---	---	---	15.5	14.0	14.5
6	14.5	14.0	14.0	16.5	14.5	15.0	---	---	---	15.0	14.5	14.5
7	14.5	13.5	14.0	16.0	15.0	15.5	---	---	---	16.0	14.0	14.5
8	14.5	13.0	13.5	16.5	15.0	15.5	---	---	---	16.0	14.0	14.5
9	14.5	14.0	14.5	16.5	15.5	15.5	---	---	---	16.0	14.5	15.0
10	14.5	13.5	14.0	17.0	15.5	16.0	---	---	---	15.5	14.0	14.5
11	15.5	13.5	14.5	16.5	15.5	15.5	---	---	---	15.5	14.0	15.0
12	14.5	14.0	14.5	16.5	15.5	15.5	16.5	16.0	16.0	15.5	14.5	14.5
13	15.5	14.5	14.5	17.0	15.5	16.0	16.5	16.0	16.0	15.0	14.5	15.0
14	15.0	14.0	14.5	17.5	15.5	16.0	16.5	16.0	16.0	15.5	14.0	15.0
15	15.5	14.5	14.5	17.5	15.5	16.0	17.5	16.0	16.5	15.5	15.0	15.0
16	16.0	14.5	15.0	17.0	15.5	16.0	17.0	16.0	16.5	15.5	15.0	15.5
17	15.0	14.5	15.0	17.5	15.5	16.5	16.5	16.0	16.0	15.5	15.0	15.5
18	15.5	14.5	15.0	17.5	15.5	16.5	17.5	16.0	16.5	16.0	15.0	15.5
19	16.0	14.5	15.0	17.5	16.0	16.5	17.0	16.0	16.5	16.0	15.0	15.5
20	16.0	15.0	15.5	17.5	16.0	17.5	17.5	16.0	16.5	17.5	15.0	16.0
21	16.0	15.0	15.5	17.5	16.0	16.5	17.0	16.0	16.5	17.0	16.0	16.0
22	16.0	15.0	15.5	18.0	16.0	16.5	17.0	16.0	16.5	16.5	16.0	16.0
23	16.5	15.0	16.0	17.5	16.0	16.5	17.0	16.0	16.5	16.5	16.0	16.0
24	16.5	15.0	15.5	17.5	16.0	16.5	17.0	16.5	16.5	17.5	16.0	16.5
25	16.0	15.0	15.5	17.0	15.5	16.0	17.5	16.0	16.5	17.0	16.0	16.5
26	17.0	15.0	15.5	17.5	16.0	16.5	17.5	16.0	16.5	16.5	15.0	16.0
27	17.0	15.5	16.0	---	---	---	17.0	16.0	16.5	15.5	14.0	14.5
28	16.5	15.5	16.0	---	---	---	17.5	16.0	16.5	15.0	14.0	14.5
29	17.0	15.0	15.5	---	---	---	16.5	14.0	15.5	15.0	14.0	14.5
30	17.0	15.5	16.5	---	---	---	15.5	14.0	14.0	16.5	14.0	15.0
31	---	---	---	---	---	---	14.5	14.0	14.0	---	---	---
MONTH	17.0	13.0	15.0	18.0	14.5	16.0	17.5	14.0	16.0	17.5	14.0	15.0

01450500 AQUASHICOLA CREEK AT PALMERTON, PA

LOCATION.--Lat 40°48'22", long 75°35'54", Carbon County, Hydrologic Unit 02040106, on right bank 1,200 ft (370 m) upstream from Sixth Street Bridge in Palmerton, and 1.2 mi (1.9 km) upstream from mouth.

DRAINAGE AREA.--76.7 mi^2 (198.7 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1939 to current year.

REVISED RECORDS.--WSP 1051: 1940-45 (monthly net diversion), drainage area. WDR PA-68: 1967 (monthly net diversion).

GAGE.--Water-stage recorder. Datum of gage is 389.08 ft (118.592 m) above mean sea level.

REMARKS.--Records good. Regulation at low flow by mills above station. Occasional diversion from Pohopoco Creek into Aquashicola Creek above station . Figures of daily discharge do not include water diverted above station from Aquashicola Creek by the New Jersey Zinc Co.

AVERAGE DISCHARGE.--38 years, 151 ft^3/s (4.28 m^3/s), 26.74 in/yr (679 mm/yr), adjusted for diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,700 ft^3/s (331 m^3/s) July 10, 1945, gage height, 13.63 ft (4.154 m), from rating curve extended above 2,500 ft^3/s (71 m^3/s) on basis of contracted-opening measurement of peak flow; minimum, 2.6 ft^3/s (0.074 m^3/s) Sept. 12, 1957, from rating curve extended below 16 ft^3/s (0.45 m^3/s); minimum gage height, 2.44 ft (0.74 m) Sept. 16, 1964; minimum daily discharge, 9.1 ft^3/s (0.26 m^3/s) Sept. 15, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft^3/s (28.3 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Oct. 9	1945	1,490	42.2	6.35	1.935
Feb. 25	0200	1,980	56.1	7.07	2.155
Mar. 5	0445	2,240	63.4	7.44	2.268
Mar. 14	0900	1,040	29.5	5.64	1.719
Mar. 23	0145	*2,750	77.9	*8.07	2.460

Minimum daily discharge, 24 ft^3/s (0.68 m^3/s) Sept. 13, minimum gage height, 2.80 ft (0.853 m) Feb. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	131	326	69	63	37	312	206	133	63	47	34	34
2	131	303	73	68	39	249	243	133	66	45	29	34
3	204	277	65	61	39	212	353	131	60	43	48	33
4	258	261	68	63	39	650	336	133	57	43	48	29
5	228	237	65	58	40	1770	528	155	57	44	37	29
6	206	217	63	57	37	844	750	143	61	47	52	29
7	180	198	342	60	37	554	558	143	66	57	87	29
8	175	185	420	55	36	420	431	133	60	68	80	26
9	904	172	283	55	39	343	349	136	111	54	58	26
10	844	165	226	58	37	293	303	131	145	45	49	27
11	462	153	196	52	39	255	267	124	91	43	58	26
12	370	143	177	54	47	228	240	116	78	45	51	25
13	306	136	155	49	80	499	217	109	71	48	54	24
14	274	129	131	51	93	970	201	101	68	44	51	26
15	234	124	129	52	80	675	185	97	66	40	47	25
16	209	118	122	51	63	495	172	95	61	39	42	31
17	185	113	118	45	52	391	160	95	60	39	57	69
18	170	111	109	45	54	356	150	99	60	41	63	39
19	155	107	103	45	51	329	143	105	57	40	48	34
20	212	103	101	47	51	296	133	89	55	65	44	44
21	594	99	103	45	47	274	129	84	55	42	42	45
22	454	95	87	44	45	855	124	82	52	37	61	39
23	356	91	87	41	49	1900	122	78	49	34	51	44
24	299	85	82	43	307	877	175	76	49	34	45	89
25	293	82	76	43	1040	585	190	71	61	34	44	274
26	309	80	82	44	431	451	158	69	80	35	39	326
27	293	80	73	41	332	374	162	68	57	33	37	290
28	277	78	76	40	391	326	150	66	55	33	36	198
29	255	91	73	40	---	290	141	66	57	33	34	150
30	234	78	65	39	---	258	136	65	51	34	31	120
31	329	---	68	39	---	228	---	61	---	34	31	---
TOTAL	9531	4437	3887	1548	3632	16559	7412	3187	1979	1320	1488	2214
MEAN	307	148	125	49.9	130	534	247	103	66.0	42.6	48.0	73.8
MAX	904	326	420	68	1040	1900	750	155	145	68	87	326
MIN	131	78	63	39	36	212	122	61	49	33	29	24
(/)	+1.9	+.5	-.2	-.5	-.6	-.7	-.4	-.2	-.1	-.2	-.5	-.8
MEAN≠	309	148	125	49.4	129	533	247	103	65.9	42.4	47.5	73.0
CFSM≠	4.03	1.93	1.63	.64	1.68	6.95	3.22	1.34	.86	.55	.62	.95
IN.≠	4.65	2.15	1.88	.74	1.75	8.01	3.59	1.54	.96	.63	.72	1.06

CAL YR 1976 TOTAL 62430 MEAN 171 MAX 2400 MIN 45 MEAN≠ 171 CFSM≠ 2.23 IN.≠ 30.28
WTR YR 1977 TOTAL 57194 MEAN 157 MAX 1900 MIN 24 MEAN≠ 157 CFSM≠ 2.05 IN.≠ 27.74

/ Figures of net dirversion, in cubic feet per second, include water from Pohopoco Creek at Aquashicola Creek plus water diverted above station from Aquashicola Creek; furnished by New Jersey Zinc Company.

≠ Adjusted for diversion.

01450500 AQUASHICOLA CREEK AT PALMERTON, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1975 to current year.

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL-LECTING SAMPLE	INSTAN-TANEOUS DIS-CHARGE (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (JTU)	DIS-SOLVED OXYGEN (MG/L)
OCT								
26...	1005	9813	319	130	7.0	9.5	5	10.7
NOV								
17...	1005	9813	111	180	7.5	3.5	1	13.0
DEC								
16...	1025	9813	122	160	--	3.0	3	12.5
JAN								
13...	1020	9813	40	230	6.5	1.0	3	13.3
FEB								
22...	1040	9813	35	260	7.7	2.0	5	--
MAR								
30...	1110	9813	240	150	6.6	12.5	2	9.7
AP								
1 ...	1205	9813	220	170	7.5	14.5	1	7.1
MAY								
18...	1030	9813	87	180	7.5	--	2	--
JUN								
22...	1115	9813	52	270	7.6	20.0	1	10.0
JUL								
11...	1100	9813	54	260	7.7	22.5	2	7.0
AUG								
16...	1300	9813	41	280	8.0	20.5	1	9.0
SEP								
22...	1100	9813	41	270	--	16.5	2	9.1

DATE	HARD-NESS (CA,MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	TOTAL FILT-RABLE RESIDUE (MG/L)
OCT									
26...	60	--	0	14	6.0	26	20	6.0	96
NOV									
17...	60	--	0	16	4.5	34	50	8.0	116
DEC									
16...	60	--	0	16	5.0	34	36	7.0	108
JAN									
13...	90	--	0	29	4.0	46	45	9.0	162
FEB									
22...	94	0	0	30	4.5	54	54	11	144
MAR									
30...	54	--	0	17	2.5	32	38	6.0	102
APR									
13...	60	0	0	15	5.5	242	26	8.0	140
MAY									
18...	45	--	0	15	1.7	44	36	9.0	106
JUN									
22...	98	--	0	29	6.0	42	66	12	152
JUL									
11...	98	--	0	28	6.5	50	53	12	174
AUG									
16...	100	--	0	30	6.0	68	56	12	--
SEP									
22...	98	--	0	29	6.0	78	53	11	210

01450500 AQUASHICOLA CREEK AT PALMERTON, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	TOTAL RESI-DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL ZINC (ZN) (UG/L)
OCT								
26...	--	--	1.7	.04	.18	.26	230	1110
NOV								
17...	--	--	1.6	.05	.17	.06	100	3100
DEC								
16...	--	--	1.7	.04	.42	.11	120	1700
JAN								
1...	--	--	1.6	.03	1.2	.07	260	3600
FEB								
22...	12	176	1.7	.04	1.4	.10	260	3100
MAR								
30...	--	--	1.6	.02	.29	.05	60	1600
AP								
1 ...	--	--	1.4	.03	.37	.04	120	--
MAY								
14...	2	108	1.1	.02	.58	.11	130	1500
JUN								
22...	6	--	1.3	.11	.62	.13	110	5150
JUL								
11...	4	170	1.2	.11	.49	.14	440	1600
AUG								
16...	--	--	1.5	.03	.75	.14	60	2050
SEP								
22...	4	214	1.7	.05	.02	.10	150	1670

DATE	TIME	TOTAL CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	TOTAL NICKEL (NI) (UG/L)
NOV							
17...	1005	--	20	<10	<50	220	<10
FEB							
22...	1040	72	<10	<10	50	440	20
MAY							
18...	1030	43	<10	--	<50	220	<10
AUG							
16...	1300	60	<10	10	<50	50	<10

01451000 LEHIGH RIVER AT WALNUTPORT, PA

LOCATION.--Lat 40°45'25", long 75°36'12", Northampton County, Hydrologic Unit 02040106, on left bank 0.3 mi (0.5 km) upstream from highway bridge at Walnutport, and 0.4 mi (0.6 km) upstream from Trout Creek. Water-quality sampling site 0.2 mi (0.3 km) downstream.

DRAINAGE AREA.--889 mi² (2,303 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1946 to current year.

GAGE.--Water-stage recorder. Datum of gage is 350.27 ft (106.762 m) above mean sea level.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated by Wild Creek Reservoir since January 1941, Penn Forest Reservoir since October 1958, Francis E. Walter Lake since February 1961, and Beltzville Lake since February 1971 (see p. 98).

AVERAGE DISCHARGE.--31 years, 1,830 ft³/s (51.83 m³/s), 27.95 in/yr (710 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 77,800 ft³/s (2,200 m³/s) Aug. 19, 1955, gage height, 17.68 ft (5.389 m); minimum, 57 ft³/s (1.61 m³/s) July 27, 1965, gage height, 1.25 ft (0.381 m), result of upstream shutoff.

EXTREMES OUTSIDE OF PERIOD OF RECORD.--Maximum stage known, 20.6 ft (6.28 m) May 23, 1942, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 18,200 ft³/s (515 m³/s) Mar. 5, gage height, 7.85 ft (2.393 m); minimum, 253 ft³/s (7.16 m³/s) Sept. 8, gage height, 1.68 ft (0.512 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	---	[illegible]	[illegible]	---	[illegible]	---	[illegible]	---	[illegible]	[illegible]	---
TOTAL	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MEAN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MAX	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MIN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
CFSM	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
IN.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

CAL YR 1976 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] CFSM [illegible] IN [illegible]
WTR YR 1977 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] CFSM [illegible] IN [illegible]

01451000 LEHIGH RIVER AT WALNUTPORT, PA.--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1975 to current year.

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL-LECTING SAMPLE	INSTAN-TANEOUS DIS-CHARGE (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (JTU)	DIS-SOLVED OXYGEN (MG/L)	HARD-NESS (CA,MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)
OCT												
26...	1045	9813	5680	80	7.4	8.5	5	10.8	20	--	0	6.7
NOV												
17...	1130	9813	1290	150	6.6	4.0	--	13.5	30	--	0	11
DEC												
16...	1055	9813	1460	100	--	--	3	--	34	--	0	8.0
JAN												
13...	1105	9813	1550	110	6.6	.0	1	13.0	36	--	0	8.7
FEB												
22...	1010	9813	876	130	6.6	.5	2	--	38	0	0	9.0
MAR												
30...	1535	9813	5750	80	6.2	7.5	3	11.6	19	--	0	7.1
APR												
13...	1130	9813	3660	100	7.5	12.0	2	9.5	25	0	0	7.1
MAY												
16...	1030	9813	1360	120	7.3	--	2	--	35	--	0	25
JUN												
22...	1035	9813	1040	130	7.5	18.0	2	9.0	40	--	0	8.0
JUL												
11...	1030	9813	732	120	7.3	22.5	2	8.8	40	--	0	6.7
AUG												
16...	1130	9813	407	215	7.9	21.0	1	8.1	52	--	0	8.5
SEP												
22...	1130	9813	792	170	--	16.0	6	9.5	37	--	0	10

DATE	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	TOTAL FILT-RABLE RESIDUE (MG/L)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	TOTAL RESI-DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)
OCT												
26...	2.9	14	8.0	7.0	70	--	--	.82	.03	.06	.05	370
NOV												
17...	.6	29	35	11	86	--	--	.94	.02	.10	.04	180
DEC												
16...	3.5	16	24	9.7	66	--	--	1.1	.03	.16	.04	230
JAN												
13...	3.8	16	18	12	80	--	--	.87	.02	.13	.05	160
FEB												
22...	4.5	15	24	25	100	--	--	.89	.03	.21	.07	200
MAR												
30...	.5	12	19	9.0	68	--	--	.75	.01	.06	.03	220
APR												
13...	1.9	210	25	10	72	--	--	.80	.08	.12	.04	110
MAY												
16...	--	20	26	13	72	0	72	.37	.01	.15	1.5	80
JUN												
22...	3.0	30	35	15	80	--	--	.80	.03	.10	.08	260
JUL												
11...	7.0	30	25	11	142	--	--	.72	.06	.10	.07	310
AUG												
16...	--	20	40	20	--	--	--	1.0	--	.23	.70	30
SEP												
22...	2.3	40	26	19	136	--	--	.92	.04	.11	.13	480

DATE	TIME	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]												
[illegible]	[illegible]	9813	[illegible]	[illegible]	--	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]												
[illegible]	[illegible]	9813	[illegible]	[illegible]	0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]												
[illegible]	[illegible]	9813	[illegible]	[illegible]	--	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]												
[illegible]	[illegible]	9813	[illegible]	[illegible]	--	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

01451500 LITTLE LEHIGH CREEK NEAR ALLENTOWN, PA

LOCATION.--Lat 40°34'56", long 75°29'00", Lehigh County, Hydrologic Unit 02040106, on right bank at downstream side of bridge on Lehigh Parkway in Allentown, 0.8 mi (1.3 km) upstream from Cedar Creek, and 2.9 mi (4.7 km) upstream from mouth.

WATER-DISCHARGE RECORDS

DRAINAGE AREA.--80.8 mi² (209.3 km²).

PERIOD OF RECORD.--October 1945 to current year. Prior to October 1946, published as "at Allentown".

REVISED RECORDS.--WDR PA-73: 1946(M), 1951(P), 1955(M), 1956(M), 1958(M), 1962(M), 1963(M), 1965(M), 1969(M), 1971(M).

GAGE.--Water-stage recorder and, since September 1958, masonry control. Datum of gage is 253.41 ft (77.239 m) above mean sea level.

REMARKS.--Records good except those for winter periods, which are fair. Occasional regulation at low flow by fish hatchery above station.

AVERAGE DISCHARGE.--32 years, 95.5 ft³/s (2.705 m³/s), 16.05 in/yr (408 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,800 ft³/s (334 m³/s) June 22, 1972, gage height, 11.80 ft (3.597 m), from rating curve extended above 980 ft³/s (27.8 m³/s) on basis of slope-area measurement of peak flow; minimum, 17 ft³/s (0.48 m³/s) Feb. 4, 1965, gage height, 1.84 ft (0.561 m), result of upstream shutoff; minimum gage height, 1.39 ft (0.424 m) June 17, 18, 22, 1949.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 450 ft³/s (12.7 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 7	1315	507	14.4	3.47	1.058
Feb. 25	0700	1,080	30.6	4.25	1.295
Mar. 4	2000	465	13.2	3.40	1.036
Mar. 14	0115	567	16.1	3.57	1.088
Mar. 22	1930	*1,260	35.7	*4.44	1.353
Apr. 5	0500	592	16.8	3.61	1.100
Aug. 10	1745	501	14.2	3.46	1.055

Minimum discharge, 46 ft³/s (1.30 m³/s) Jan. 17, gage height, 2.22 ft (0.677 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57	95	66	56	53	106	136	118	86	64	61	62
2	58	65	65	59	53	92	183	129	86	63	75	62
3	61	74	62	58	53	87	281	119	81	63	124	61
4	63	77	63	58	53	217	177	116	78	60	125	60
5	56	74	62	58	54	264	449	167	77	60	74	60
6	60	76	62	57	51	108	304	169	85	63	72	65
7	55	71	236	58	52	122	293	157	80	77	71	56
8	54	69	162	56	53	119	213	128	81	76	66	58
9	172	68	87	57	52	102	189	126	113	67	72	63
10	106	68	82	60	53	99	169	127	156	62	107	57
11	71	68	78	63	55	95	172	115	85	60	117	60
12	64	66	77	59	63	92	165	113	78	106	76	61
13	61	65	73	58	152	232	158	118	93	118	130	58
14	58	64	68	58	96	264	162	109	76	81	126	57
15	60	64	71	57	76	187	147	112	76	71	83	56
16	58	64	71	56	60	169	143	101	76	56	76	60
17	60	64	71	62	61	152	139	107	76	65	74	57
18	54	64	69	56	60	150	136	98	78	67	75	61
19	56	64	67	56	58	137	174	101	78	61	71	58
20	91	64	69	55	54	126	151	98	76	60	80	57
21	197	64	72	55	56	389	124	85	82	71	66	59
22	85	63	62	54	56	496	127	83	75	64	61	57
23	76	63	67	54	61	478	125	81	67	63	76	56
24	71	64	64	55	216	293	135	92	80	62	72	59
25	80	64	63	55	467	286	192	93	74	67	72	110
26	105	64	64	55	180	173	175	88	78	60	59	62
27	89	66	63	55	117	167	165	87	68	62	61	73
28	78	64	60	54	144	154	136	86	72	65	63	67
29	76	78	63	52	----	150	136	80	76	58	63	63
30	73	72	60	54	----	142	125	81	67	58	67	69
31	118	----	61	53	----	140	----	86	----	63	62	----
TOTAL	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MEAN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MAX	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MIN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
CFSM	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
IN.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

CAL YR 1976 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] CFSM [illegible] IN [illegible]
WTR YR 1977 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] CFSM [illegible] IN [illegible]

01451500 LITTLE LEHIGH RIVER NEAR ALLENTOWN, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1975 to current year.

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources

WATER QUALITY DATA, NOVEMBER 1976 TO AUGUST 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA,MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)
NOV 17...	1305	9813	62	390	7.5	6.5	1	13.1	184	--	0	36
FEB 17...	1230	9813	62	350	8.0	4.0	2	13.1	150	0	0	32
MAY 11...	1305	9813	116	350	8.0	--	2	--	142	--	0	36
AUG 16...	0930	9813	81	360	7.6	16.0	16	8.5	150	0	0	36

DATE	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA * NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)
NOV 17...	22	140	25	13	230	3.0	.03	.03	.04	70	<10
FEB 17...	17	128	20	16	216	3.5	.03	.06	.05	130	10
MAY 11...	12	146	20	13	226	3.2	.04	.09	.03	160	10
AUG 16...	15	136	18	13	--	4.1	.03	.10	.17	770	50

01451800 JORDAN CREEK NEAR SCHNECKSVILLE, PA

LOCATION.--Lat 40°39'42", long 75°37'38", Lehigh County, Hydrologic Unit 02040106, on left bank 54 ft (16.5 m) downstream from wooden covered bridge at Trexler-Lehigh County Game Preserve, 1.0 mi (1.6 km) downstream from Mill Creek, and 1.1 mi (1.8 km) southwest of Schnecksville.

DRAINAGE AREA.--53.0 mi² (137.3 km²).

PERIOD OF RECORD.--February 1966 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 400 ft (122 m), from topographic map. Prior to Oct. 2, 1973, nonrecording gage at bridge 54 ft (16.5 m) upstream at same datum.

REMARKS.--Records good except for periods of ice effect, which are fair.

AVERAGE DISCHARGE.--11 years, 90.6 ft³/s (2.566 m³/s), 23.22 in/yr (590 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,100 ft³/s (201 m³/s) June 22, 1972, gage height, 12.32 ft (3.755 m), from floodmark, from rating curve extended above 680 ft³/s (19.3 m³/s) on basis of contracted-opening measurement of peak flow; minimum observed, 0.4 ft³/s (0.011 m³/s) July 26, 1966; minimum gage height observed, 1.74 ft (0.530 m) July 19, 26, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 600 ft³/s (17.0 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 7	1230	696	19.7	5.04	1.536	Mar. 14	0230	612	17.3	4.83	1.472
Feb. 24	2400	*2,950	83.5	*8.47	2.582	Mar. 22	2145	1,800	51.0	7.00	2.134
Mar. 4	2045	1,100	31.2	5.89	1.795						

Minimum discharge, 7.3 ft³/s (0.207 m³/s) Aug. 1, gage height, 2.58 ft (0.786 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	163	20	22	6.4	163	77	76	19	16	13	28
2	39	150	22	21	6.8	103	172	73	19	13	12	26
3	71	137	15	20	6.8	81	276	69	18	10	53	24
4	69	126	18	20	6.8	460	236	63	17	9.1	37	21
5	59	108	19	19	9.0	630	479	113	16	9.1	20	20
6	55	93	17	17	8.0	339	502	201	18	12	24	20
7	49	81	291	18	7.2	230	369	121	25	22	37	18
8	51	71	219	16	6.8	170	262	105	21	31	24	16
9	376	63	195	15	6.5	135	192	103	25	17	76	16
10	335	60	125	19	6.3	112	157	89	70	16	53	15
11	212	56	107	25	7.0	95	132	79	30	8.5	76	16
12	153	49	94	17	15	83	112	68	20	20	52	16
13	122	45	80	12	70	323	97	62	18	21	75	13
14	100	42	71	13	150	558	86	57	16	16	69	13
15	81	40	76	15	100	386	76	52	17	11	57	12
16	60	37	66	13	56	267	60	47	15	9.1	47	15
17	59	35	56	11	43	188	60	43	16	9.1	51	35
18	52	36	48	10	36	166	55	40	16	16	68	19
19	60	32	45	9.0	30	161	51	50	13	9.5	[illegible]	15
20	111	30	44	13	20	131	48	43	13	56	31	22
21	262	29	55	12	37	118	44	38	26	18	20	21
22	232	27	55	10	26	600	41	36	16	12	111	19
23	176	26	42	9.6	37	930	41	31	11	9.2	69	19
24	152	24	33	9.2	525	661	138	29	17	8.6	64	48
25	156	24	30	11	884	299	139	27	[illegible]	10	56	149
26	237	23	37	10	255	218	119	29	[illegible]	30	44	182
27	217	23	35	8.5	195	172	112	26	21	13	42	130
28	176	22	33	8.6	236	148	152	22	24	10	31	107
29	167	20	32	8.3	---	128	97	21	27	9.7	30	83
30	172	23	27	7.6	---	108	86	19	17	9.6	31	60
31	219	---	26	8.9	---	91	---	18	---	9.4	30	---
TOTAL	4356	1753	2428	427.1	2765.6	8116	4300	1848	653	466.7	1462	1178
MEAN	141	58.4	78.3	13.8	98.8	262	147	59.6	21.8	15.1	47.5	39.3
MAX	376	163	291	25	884	930	502	201	70	56	111	182
MIN	36	20	15	7.6	6.3	81	41	18	11	8.6	12	12
CFSM	2.66	1.10	1.48	.26	1.86	4.94	2.77	1.13	.41	.29	.90	.74
IN.	3.06	1.23	1.70	.30	1.94	5.70	3.09	1.30	.46	.31	1.03	.83

CAL YR 1976 TOTAL 29615.5 MEAN 79.0 MAX 1760 MIN 6.3 CFSM 1.49 IN 20.27
WTR YR 1977 TOTAL 29552.4 MEAN 81.0 MAX 930 MIN 6.3 CFSM 1.53 IN 20.74

01452000 JORDAN CREEK AT ALLENTOWN, PA

LOCATION.--Lat 40°37'23", long 75°28'58", Lehigh County, Hydrologic Unit 02040106, on right bank 200 ft (60 m) upstream from bridge on State Highway 145, 0.5 mi (0.8 km) northwest of city limits of Allentown, and 2.5 mi (4.0 km) upstream from mouth. Water-quality sampling site at bridge 200 ft (60 m) downstream.

DRAINAGE AREA.--75.8 mi² (196.3 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1944 to current year.

REVISED RECORDS.--WDR PA-76-1: 1970(M), 1971.

GAGE.--Water-stage recorder and rubble masonry control, crest raised one foot (0.3 m) in August 1958 and further modified by filling in square notches on sides and notching center of dam at 17:1 slope in August 1974. Datum of gage is 259.82 ft (79.193 m) above mean sea level (Pennsylvania Department of Transportation benchmark).

REMARKS.--Records good. Some regulation at low flow by mills above station.

AVERAGE DISCHARGE.--33 years, 111 ft³/s (3.144 m³/s), 19.80 in/yr (503 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,200 ft³/s (459 m³/s) June 23, 1972, gage height, 11.61 ft (3.539 m), from floodmark, from rating curve extended above 6,100 ft³/s (173 m³/s) on basis of slope-area measurement of peak flow; no flow on many days.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 23, 1942, reached a stage of approximately 7.1 ft (2.16 m) outside, from floodmarks 650 ft (200 m) downstream.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,300 ft³/s (36.8 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 7	1900	1,370	38.8	4.83	1.472	Mar. 5	0045	1,620	45.9	5.04	1.536
Feb. 25	0215	*3,600	102	*6.25	1.905	Mar. 23	0100	2,790	79.0	5.82	1.774

Minimum discharge, 3.6 ft³/s (0.10 m³/s) July 25, gage height, 1.97 ft (0.600 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	266	29	22	8.3	240	103	98	23	18	12	31
2	42	231	32	22	8.5	170	162	91	27	15	14	29
3	50	212	17	22	8.8	127	471	91	24	12	23	27
4	104	195	19	22	8.9	497	303	81	22	11	79	24
5	71	167	21	22	9.8	1120	736	127	19	9.5	27	22
6	67	149	19	19	9.4	990	903	275	22	10	23	20
7	62	128	320	19	9.2	403	636	170	34	16	33	20
8	56	113	394	19	9.1	280	659	146	26	35	32	19
9	444	100	252	19	8.8	213	327	134	36	28	71	17
10	562	96	207	21	8.5	170	240	119	62	18	97	16
11	342	85	171	21	9.6	136	190	98	42	13	119	16
12	231	77	140	25	11	116	160	89	29	17	60	13
13	170	69	120	16	119	308	136	81	26	26	91	12
14	150	64	66	16	226	878	119	73	22	22	103	12
15	121	59	96	15	110	660	101	67	22	15	81	12
16	105	55	90	18	81	670	91	63	22	12	63	16
17	88	51	90	17	66	327	86	57	21	10	61	27
18	77	50	80	13	67	286	76	56	19	10	71	25
19	66	47	58	12	61	240	73	67	20	13	65	17
20	56	43	71	13	34	200	71	56	19	80	37	23
21	506	40	69	15	31	177	63	60	19	36	31	24
22	363	30	130	12	28	716	61	63	22	19	166	19
23	270	32	92	11	29	1003	55	61	16	14	111	20
24	219	30	66	11	166	691	160	58	13	12	89	37
25	207	35	56	12	1910	536	196	37	16	16	76	192
26	276	29	37	12	912	388	196	30	64	36	63	166
27	306	33	36	13	337	282	156	30	29	22	56	177
28	283	30	27	12	631	226	143	29	25	16	66	143
29	237	66	38	11	---	192	133	27	22	13	63	111
30	193	63	29	9.5	---	192	111	26	20	12	37	91
31	316	---	26	8.8	---	127	---	25	---	12	33	---
TOTAL	6639	2617	2837	496.0	6110.0	13057	6768	2615	827	592.0	1866	1287
MEAN	214	87.2	91.5	16.0	218	421	226	84.4	27.6	19.1	60.2	42.9
MAX	566	266	394	25	1910	1120	903	275	62	80	166	192
MIN	31	29	17	8.8	8.3	116	55	25	13	9.5	12	12
CFSM	2.82	1.15	1.21	.21	2.88	5.55	2.98	1.11	.36	.25	.79	.57
IN.	3.26	1.28	1.39	.24	3.00	6.40	3.32	1.28	.41	.29	.92	.63

CAL YR 1976 TOTAL 41510.0 MEAN 113 MAX 3331 MIN 5.0 CFSM 1.49 IN 20.38
WTR YR 1977 TOTAL 42064.3 MEAN 115 MAX 1910 MIN 8.3 CFSM 1.52 IN 20.64

01452000 JORDAN CREEK AT ALLENTOWN, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1975 to current year.

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, NOVEMBER 1976 TO AUGUST 1977

DATE	TIME	CODE FOR AGENCY COL-LECTING SAMPLE	INSTAN-TANEOUS DIS-CHARGE (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (JTU)	DIS-SOLVED OXYGEN (MG/L)	HARD-NESS (CA,MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)
NOV 17...	1230	9813	51	350	7.7	4.0	1	12.7	125	--	0	30
FEB 17...	1140	9813	93	340	7.1	1.0	2	12.1	110	0	0	31
MAY 10...	1325	9813	119	260	7.0	10.5	2	11.2	86	--	0	27
AUG 16...	1020	9813	63	310	7.6	20.5	1	7.2	103	0	0	30

DATE	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	TOTAL FILT-RABLE RESIDUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)
NOV 17...	12	76	70	13	234	3.5	.06	.39	.04	190	100
FEB 17...	8.0	56	48	30	224	3.2	.05	.04	.02	200	160
MAY 10...	6.5	52	42	13	166	3.2	.06	.15	.05	100	30
AUG 16...	6.5	90	40	15	--	2.0	.06	.15	.07	430	100

01452150 LEHIGH RIVER AT BETHLEHEM, PA

LOCATION.--Lat 40°36'52", long 75°23'05", Northampton County, Hydrologic Unit 02040106, at bridge on State Route 378 in Bethlehem, 0.65 mi (1.0 km) upstream from Monocacy Creek.

DRAINAGE AREA.--not available.

PERIOD OF RECORD.--October 1976 to current year.

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	BIO- CHEM- ICAL OXYGEN DEMAND 5 DAY (MG/L)
OCT								
26...	1225	9813	130	7.4	9.5	6	10.0	--
NOV								
18...	1100	9813	210	7.5	5.5	3	9.3	1.7
DEC								
16...	1230	9813	190	7.5	--	4	--	--
JAN								
26...	1115	9813	300	7.7	3.0	2	12.1	--
FEB								
2 ...	1125	9813	270	7.0	--	4	--	2.7
MAR								
28...	1135	9813	130	7.5	7.0	4	11.5	--
APR								
13...	1045	9813	160	7.6	13.5	2	--	--
MAY								
11...	1150	9813	180	7.3	--	4	--	1.5
JUN								
23...	1125	9813	230	7.6	22.0	2	8.8	--
JUL								
07...	1115	9813	300	7.6	22.0	2	6.8	--
AUG								
15...	1145	9813	265	7.6	23.0	4	7.6	3.5
SEP								
21...	1145	9813	210	--	19.0	5	7.7	--

DATE	HARD- NESS (CA,MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)
OCT									
26...	38	--	0	11	2.5	26	16	10	96
NOV									
18...	78	--	0	16	9.5	66	35	16	168
DEC									
16...	60	--	--	16	5.0	66	36	17	126
JAN									
26...	70	--	0	20	6.5	58	33	30	186
FEB									
24...	76	0	0	22	6.5	56	32	25	170
MAR									
28...	60	--	0	11	3.8	28	18	13	106
APR									
13...	50	--	--	12	6.5	221	26	13	118
MAY									
11...	50	--	0	15	5.0	38	26	17	112
JUN									
23...	75	--	0	18	7.2	66	33	22	198
JUL									
07...	116	--	0	28	11	66	42	23	--
AUG									
15...	95	--	--	26	7.7	86	32	18	206
SEP									
21...	82	--	0	12	8.0	66	26	17	112

01452150 LEHIGH RIVER AT BETHLEHEM, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
OCT								
26...	1.2	.04	.14	.12	440	--	--	--
NOV								
18...	1.7	.03	.23	.28	370	--	--	.00
DEC								
16...	1.6	.03	.36	.88	250	--	--	--
JAN								
26...	1.5	.06	.82	.32	280	--	--	--
FEB								
2 ...	1.7	.06	.59	1.0	480	<.01	<10	<.01
MAR								
28...	1.5	.02	.22	.10	340	--	--	--
AP								
13...	1.3	.03	.20	.14	230	--	--	--
MAY								
11...	1.2	.03	.27	.21	300	.01	<10	<.01
JUN								
23...	1.4	.07	.43	.29	410	--	--	--
JUL								
07...	1.8	.13	.50	.35	370	--	--	--
AUG								
15...	1.9	.10	.45	.31	23	.01	<10	<.01
SEP								
21...	1.2	.06	.25	.29	440	--	--	--

DATE	TIME	CODE FOR AGENCY COL-LECTING SAMPLE	TOTAL CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)
NOV									
16...	1100	9813	--	10	--	50	140	20	250
FEB									
24...	1125	9813	<10	30	10	<50	130	30	270
MAY									
11...	1150	9813	--	10	10	<50	90	20	170
AUG									
15...	1145	9813	--	<10	10	<50	80	<10	70

01452500 MONOCACY CREEK AT BETHLEHEM, PA

LOCATION.--Lat 40°38'28", long 75°22'47", Northampton County, Hydrologic Unit 02040106, on right bank 40 ft (12 m) downstream from highway bridge at entrance to Monocacy Park at Bethlehem, and 2.1 mi (3.4 km) upstream from mouth.

DRAINAGE AREA.--44.5 mi² (115.3 km²).

PERIOD OF RECORD.--October 1948 to current year.

GAGE.--Water-stage recorder. Concrete control since July 17, 1969. Datum of gage is 247.24 ft (75.359 m) above mean sea level (levels by Corps of Engineers). Prior to May 15, 1962, nonrecording gage at site 40 ft (12 m) upstream at same datum.

REMARKS.--Records fair except for periods of doubtful gage-height record, which are poor. Some regulation at low flow by mill above station since April 1954.

AVERAGE DISCHARGE.--29 years, 50.5 ft³/s (1.430 m³/s), 15.42 in/yr (392 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,340 ft³/s (66.3 m³/s) Feb. 28, 1958, gage height, 7.63 ft (2.326 m), from rating curve extended above 560 ft³/s (15.9 m³/s) on basis of slope-area measurement at gage height 9.74 ft (2.969 m); minimum, 3.0 ft³/s (0.085 m³/s) Jan. 9, 1966, gage height 1.67 ft (0.509 m).

EXTREMES OUTSIDE OF PERIOD OF RECORD.--Flood of July 10, 1945, reached a stage of 9.74 ft (2.969 m), from floodmarks, discharge, 5,200 ft³/s (147 m³/s), by slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 300 ft³/s (8.50 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 25	0415	*1,010	28.6	*5.02	1.530	Mar. 23	0200	455	12.9	3.87	1.180
Mar. 4	2045	312	8.84	3.48	1.061						

Minimum discharge, 18 ft³/s (0.51 m³/s) Feb. 2-11, gage height, 2.18 ft (0.664 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	97	22	26	19	83	65	63	33	30	26	31
2	30	91	30	26	18	66	82	61	35	28	30	37
3	37	87	20	25	18	56	157	59	33	28	62	27
4	37	84	25	25	18	148	98	54	32	27	47	26
5	33	76	27	25	18	236	184	72	32	27	36	26
6	30	68	23	23	18	145	203	75	36	28	33	27
7	33	63	150	23	18	110	158	61	35	31	43	26
8	40	58	180	23	18	88	136	56	33	38	41	23
9	165	55	80	23	18	77	112	56	43	33	63	23
10	118	51	60	24	18	67	101	57	52	28	43	25
11	93	69	45	23	19	62	91	52	37	26	39	26
12	78	67	41	23	25	61	85	51	35	29	34	26
13	67	65	39	23	29	104	75	68	36	32	55	22
14	62	43	36	23	38	108	73	68	32	26	48	22
15	59	41	43	23	36	136	72	68	30	26	44	20
16	53	39	45	22	23	106	68	65	31	26	48	27
17	50	38	45	22	21	88	65	63	29	26	47	33
18	48	37	42	22	21	81	63	63	29	27	47	29
19	43	36	40	22	21	77	59	56	28	25	37	25
20	41	36	42	22	21	68	58	41	28	49	33	32
21	117	36	43	20	21	62	56	39	32	28	36	29
22	88	36	33	19	21	176	56	38	28	27	41	26
23	78	31	36	18	23	358	56	36	27	27	56	26
24	75	27	33	18	137	229	73	38	27	28	53	35
25	76	26	30	21	418	193	72	35	40	30	56	86
26	105	26	29	20	138	128	71	36	51	26	51	68
27	95	28	29	20	105	138	75	37	33	26	47	58
28	82	26	29	20	110	87	68	33	35	25	35	58
29	73	27	28	20	---	87	78	30	35	27	32	47
30	72	26	28	20	---	81	68	30	31	27	31	45
31	112	---	27	19	---	71	---	30	---	26	29	---
TOTAL	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MEAN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MAX	165	97	180	26	418	358	203	75	52	49	[illegible]	86
MIN	30	26	20	18	18	56	56	30	27	25	[illegible]	20
CFSM	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
IN.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

CAL YR 1976 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] CFSM [illegible] IN [illegible]
WTR YR 1977 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] CFSM [illegible] IN [illegible]

01453000 LEHIGH RIVER AT BETHLEHEM, PA

LOCATION.--Lat 40°36'55", long 75°22'45", Lehigh County, Hydrologic Unit 02040106, on left bank 110 ft (34 m) upstream from New Street Bridge at Bethlehem, and 1,800 ft (549 m) upstream from Monocacy Creek. Records include flow of Monocacy Creek.

DRAINAGE AREA.--1,279 mi² (3,313 km²) includes that of Monocacy Creek. At site used prior to Oct. 1, 1928, 1,229 mi² (3,183 km²).

PERIOD OF RECORD.--Sept. 1902 to February 1905, April 1909 to current year. Monthly discharge only for some periods, published in WSP 1302. Published as "at South Bethlehem" prior to Oct. 1913.

REVISED RECORDS.--WSP 261: 1903-5. WSP 321: 1910-11. WSP 1051: Drainage area. WSP 1141: 1929-34(M). WSP 1302: 1914(M), 1916(M), 1918, 1921, 1927-28. WSP 1432: 1903, 1919(M), 1920-21, 1929, 1933.

GAGE.--Water-stage recorder. Datum of gage is 210.94 ft (64.295 m) above mean sea level. Prior to October 1928, nonrecording gage at New Street Bridge 120 ft (37 m) downstream at same datum. Oct. 1, 1928, to Sept. 30, 1962, water-stage recorder at site 4,250 ft (1,295 m) downstream at datum 2.49 ft (0.759 m) lower. Oct. 1, 1963 to Dec. 14, 1975, water-stage recorder at site 40 ft (12 m) downstream at same datum.

REMARKS.--Records good. Flow regulated by Wild Creek Reservoir since Janaury 1941, Penn Forest Reservoir since October 1958, Francis E. Walter Reservoir since February 1961, and Beltzville Lake since February 1971 (see p. 98).

AVERAGE DISCHARGE.--70 years (1902-4, 1909-77), 2,319 ft³/s (65.67 m³/s), 24.62 in/yr (625 mm/yr), adjusted for diversion 1902-04, 1909-42 and, for recirculated water, October 1, 1959 to September 30, 1962.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 92,000 ft³/s (2,610 m³/s) May 23, 1942, gage height, about 25.9 ft (7.89 m), from floodmark, present site and datum, from rating curve extended above 48,000 ft³/s (1,360 m³/s); minimum, 125 ft³/s (3.54 m³/s) June 28, 1965, gage height, 0.94 ft (0.287 m).

EXTREMES OUTSIDE PERIOD OF RECORD.-Flood of Feb. 28, 1902, reached a stage of 24.9 ft (7.59 m), from floodmark, present site and datum, discharge, about 88,000 ft³/s (2,490 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 24,400 ft³/s (691 m³/s) Mar. 23, gage height, 10.23 ft (3.118 m); minimum, 519 ft³/s (14.7 m³/s) Sept. 11, gage height, 1.17 ft (0.357 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1950	5050	1330	1090	780	5020	6680	3170	1150	847	727	657
2	2060	5030	1650	1080	826	4690	5710	3090	1220	783	741	755
3	2620	6070	1260	1070	758	4420	7810	3030	1110	741	1180	713
4	3200	6200	1260	1060	775	7320	6800	2700	1035	727	1230	605
5	3070	3960	1360	1100	809	17500	8200	3330	1010	727	815	629
6	2850	3540	1200	1150	780	10100	9530	3560	1150	783	786	587
7	2620	3350	3760	1230	760	9340	9720	3080	1270	933	874	629
8	2360	3480	5830	1180	755	7230	8630	2870	1180	1200	1080	587
9	8830	3200	4550	1130	751	7000	6300	2070	1460	1200	907	573
10	11700	2030	3660	1210	819	7330	5260	3090	2280	1080	1100	545
11	7680	2610	2950	1230	867	5020	6820	3020	2520	1060	1200	587
12	6630	2360	2720	1310	939	4730	6700	3180	2060	1200	1300	946
13	5700	2250	2620	1180	1290	6700	6240	2420	1710	1140	1230	699
14	6760	2170	2190	1070	1800	11700	6030	2410	1630	962	1120	629
15	6460	2120	2260	1110	1660	9350	3760	2540	1250	843	974	761
16	3810	1920	2120	1040	1570	8330	2930	2450	1160	784	816	920
17	3610	1750	2020	964	1170	7330	2740	2110	1080	963	844	1260
18	3270	1730	1920	960	1020	7600	2660	1900	1030	896	1060	1370
19	3260	1790	1810	980	1100	5200	2580	2120	1010	799	946	1290
20	3500	1770	1620	950	1110	4870	2500	2150	1410	1430	891	1350
21	8050	1730	1690	1090	1050	6500	2360	2000	1060	845	780	1370
22	6680	1710	1430	1010	956	8060	2120	1840	1460	727	1370	1160
23	5670	1660	1610	950	1070	10100	2080	1730	1100	741	1060	1150
24	5100	1610	1520	976	2010	9990	3640	1560	801	861	901	1040
25	5610	1540	1370	1020	6050	7030	6250	1490	965	972	825	3360
26	6150	1460	1560	956	5700	6020	5660	1450	1400	886	769	4520
27	5510	1460	1430	876	4370	6190	5690	1390	1160	781	741	4770
28	5220	1460	1350	827	9950	9900	5660	1320	1170	713	727	5660
29	5060	1620	1330	819	---	6030	6650	1270	1140	741	741	4080
30	4360	1560	1110	805	---	6030	3860	1250	985	756	713	3140
31	5290	---	1160	802	---	7200	---	1210	---	767	657	---
TOTAL	153806	79530	65550	32110	50660	230950	150170	71000	39361	27926	29181	46762
MEAN	4961	2651	2115	1036	1809	7450	5006	2290	1311	901	939	1559
MAX	11700	6200	5830	1310	9950	18100	9720	3560	2520	1430	1370	5660
MIN	1950	1460	1110	802	751	4420	2080	1210	801	713	657	545
CFSM	3.88	2.07	1.65	.81	1.41	5.83	3.91	1.81	1.03	.71	.73	1.22
IN.	4.48	2.31	1.91	.93	1.47	6.72	4.37	2.09	1.14	.81	.85	1.36

CAL YR 1976 TOTAL [illegible] MEAN 3000 MAX 21300 MIN 605 CFSM 2.34 IN 31.83
WTR YR 1977 TOTAL [illegible] MEAN 2680 MAX 18100 MIN 545 CFSM 2.10 IN 28.50

01454510 SAUCON CREEK NEAR HELLERTOWN, PA

LOCATION.--Lat 40°33'26", long 75°21'44", Northampton County, Hydrologic Unit 02040106, at bridge on Legislative Route 48001, 0.1 mi (0.2 km) downstream from Lehigh-Northampton County line, 1.5 mi (2.4 km) southwest of Hellertown city limits and 2.0 mi (3.2 km) downstream from South Branch.

DRAINAGE AREA.--not available.

PERIOD OF RECORD.--October 1975 to current year.

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL-LECTING SAMPLE	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (JTU)	DIS-SOLVED OXYGEN (MG/L)	HARD-NESS (CA,MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)
OCT 26...	1325	9813	290	7.5	12.5	15	11.3	158	--	0	35	17
NOV 18...	1145	9813	330	7.8	12.0	5	12.1	164	--	0	35	19
DEC 16...	1300	9813	350	8.1	--	3	--	154	--	0	33	--
JAN 26...	1150	9813	340	8.0	10.0	--	13.0	164	--	0	36	18
FEB 17...	1300	9813	360	8.5	10.0	5	--	153	0	0	40	13
MAR 28...	1240	9813	310	8.1	11.5	2	11.3	126	--	0	33	10
APR 12...	1200	9813	310	8.7	16.5	4	13.7	127	0	0	15	22
MAY 18...	0840	9813	360	7.8	--	3	--	122	--	0	9.5	24
JUN 22...	1330	9813	350	8.1	18.5	4	11.5	154	--	0	35	16
JUL 07...	1230	9813	360	8.2	16.5	2	10.1	148	--	0	38	13
AUG 15...	1300	9813	320	7.7	19.5	2	10.5	70	--	0	36	--
SEP 21...	1325	9813	360	--	15.0	5	8.3	155	--	0	38	14

DATE	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	TOTAL FILT-RABLE RESIDUE (MG/L)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	TOTAL RESI-DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL ZINC (ZN) (UG/L)
OCT 26...	100	26	9.0	216	--	--	1.5	.06	.13	.14	370	270
NOV 18...	10	32	8.0	216	--	--	1.9	--	.18	.10	130	60
DEC 16...	132	62	9.0	212	--	--	1.8	.05	.30	.09	170	230
JAN 26...	132	32	12	170	--	--	1.7	--	.17	.10	160	190
FEB 17...	124	66	9.0	218	10	228	1.7	--	.25	.12	170	210
MAR 28...	112	30	12	230	--	--	.18	.03	--	.08	210	--
APR 12...	110	30	9.0	184	0	192	1.5	.04	.18	.07	160	100
MAY 18...	136	36	10	262	2	264	1.5	.08	.21	.10	80	140
JUN 22...	124	62	8.0	206	10	--	1.6	.07	.12	.10	130	100
JUL 07...	126	35	10	208	<5	--	1.5	.07	.07	.09	90	160
AUG 15...	132	30	7.0	200	<10	--	1.5	.04	.08	.08	130	80
SEP 21...	120	35	7.0	216	0	216	1.8	.06	.13	.10	160	60

01454653 SAUCON CREEK AT BETHLEHEM, PA

LOCATION.--Lat 40°36'27", long 75°20'24", Northampton County, Hydrologic Unit 02040106, at bridge on Legislative Route 48010 in Bethlehem, 1.2 mi (1.9 km) upstream from Lehigh River and 2.2 mi (3.5 km) downstream from Black River.

DRAINAGE AREA.--not available.

PERIOD OF RECORD.--October 1975 to current year.

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA,MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)
OCT 26...	1130	9813	300	7.2	11.0	25	11.0	132	--
NOV 18...	1020	9813	350	7.8	9.0	6	12.8	170	--
DEC 16...	1145	9813	360	8.0	--	6	--	158	--
JAN 13...	1230	9813	330	8.1	4.0	6	14.6	168	--
FEB 17...	1040	9813	350	8.3	4.0	3	13.5	154	0
MAR 28...	1115	9813	320	8.0	11.0	5	11.0	130	--
APR 12...	1100	9813	320	8.5	15.0	3	13.1	128	0
MAY 11...	1100	9813	360	8.1	13.0	6	--	136	--
JUN 23...	1100	9813	370	8.1	17.0	7	11.7	145	--
JUL 07...	1055	9813	365	7.6	18.0	2	9.0	155	--
AUG 15...	1000	9813	330	7.3	18.0	7	9.6	166	--
SEP 21...	1115	9813	360	--	15.0	5	9.0	162	--

DATE	ACIDITY CO2 AS CACO3 (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TOTAL NITRATE (N) (MG/L)
OCT 26...	5	32	13	98	22	10	212	--	1.5
NOV 18...	0	39	20	106	36	9.5	238	--	1.9
DEC 16...	0	42	13	136	44	9.0	224	--	1.9
JAN 13...	0	35	20	136	30	9.8	228	--	1.8
FEB 17...	0	38	14	128	38	10	234	--	1.8
MAR 28...	0	34	10	116	30	10	236	--	1.6
APR 12...	0	--	21	116	36	11	208	--	1.6
MAY 11...	0	35	11	125	38	10	256	--	1.6
JUN 23...	0	38	12	126	38	15	244	--	1.6
JUL 07...	0	39	14	122	36	10	25	6	1.6
AUG 15...	0	38	12	138	26	8.0	264	--	1.8
SEP 21...	5	36	17	131	33	8.0	216	--	1.7

01454653 SAUCON CREEK AT BETHLEHEM, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL ZINC (ZN) (UG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)
OCT								
26...	.04	.09	.06	1360	--	480	--	--
NOV								
18...	.05	.04	.10	100	20	--	<.01	<10
DEC								
14...	.06	.20	.10	170	--	120	--	--
JAN								
17...	.05	.18	.20	180	--	170	--	--
FEB								
17...	.05	.15	.07	120	10	120	<.01	<10
MAR								
29...	.03	.10	.06	160	--	60	--	--
APR								
19...	.04	.10	.07	130	--	70	--	--
MAY								
11...	.07	.07	.46	180	20	--	.02	10
JUN								
21...	.06	.10	.11	600	--	260	--	--
JUL								
07...	.08	.12	.11	310	--	17	--	--
AUG								
15...	.06	.11	.11	600	20	220	.01	<10
SEP								
21...	.16	.12	.10	260	--	70	--	--

LEHIGH RIVER BASIN

01454700 LEHIGH RIVER AT GLENDON, PA

LOCATION.--Lat 40°40'09", long 75°14'12", Northampton County, Hydrologic Unit 02040106, on right bank 140 ft (43 m) upstream from highway bridge in Hugh Moore Parkway at Glendon, 1.9 mi (3.1 km) upstream from mouth, and 2.0 mi (3.2 km) southwest of Easton.

DRAINAGE AREA.--1,359 mi² (3,520 km²).

PERIOD OF RECORD.--October 1966 to current year.

REVISED RECORDS.--WDR PA-72: 1971(M).

GAGE.--Water-stage recorder. Datum of gage is 164.30 ft (50.079 m) above mean sea level.

REMARKS.--Records good. Flow regulated by Francis E. Walter, Penn Forest, and Wild Creek Reservoirs and since February 1971, Beltzville Lake about 60 mi (97 km) upstream (see p. 98).

AVERAGE DISCHARGE.--11 years, 2,948 ft³/s (83.49 m³/s), 29.46 in/yr (748 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 60,600 ft³/s (1,720 m³/s) June 23, 1972, gage height, 24.86 ft (7.577 m), from rating curve extended above 19,000 ft³/s (538 m³/s); minimum, 526 ft³/s (14.9 m³/s) Oct. 1, 1966, gage height, 6.59 ft (2.009 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 23,400 ft³/s (663 m³/s) Mar. 23, gage height, 16.40 ft (4.999 m); minimum, 680 ft³/s (19.3 m³/s) Sept. 11, gage height, 6.72 ft (2.048 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2010	5650	1480	1210	974	5470	7250	3310	1370	1090	922	830
2	2090	5400	1590	1190	1010	5070	6110	3220	1410	995	961	948
3	2360	5300	1390	1170	979	4750	8520	3160	1330	947	1450	892
4	3250	4610	1430	1160	995	7310	7350	3010	1240	929	1470	857
5	3080	4260	1470	1200	1030	17700	9190	3540	1220	932	1070	806
6	2880	3860	1440	1320	963	11000	10200	3760	1350	980	1030	764
7	2690	3570	3820	1390	952	9130	10300	3270	1460	1140	1100	788
8	2410	3670	6500	1290	978	7930	9140	2990	1390	1410	1260	766
9	7920	3490	4890	1290	984	7550	7070	2990	1600	1370	1420	739
10	12900	3030	3740	1400	1030	7950	5700	3190	2360	1250	1370	719
11	8420	2590	3140	1300	1090	6380	5170	3130	2520	1240	1420	710
12	7000	2520	2850	1250	1160	5130	5030	3260	2190	1560	1270	1110
13	6120	2410	2750	1200	1450	6980	4520	2620	1860	1410	1480	903
14	7110	2310	2310	1250	1940	14000	4270	2470	1600	1180	1350	817
15	7050	2260	2300	1300	1800	12100	4010	2620	1440	1070	1160	885
16	4300	2110	2240	1240	1750	9110	3110	2540	1350	1020	1060	1120
17	3620	1920	2130	1070	1380	7970	2870	2250	1290	1120	1070	1400
18	3440	1880	2030	1060	1230	8320	2790	2060	1230	1120	1220	1520
19	3400	1920	1920	1070	1290	5860	2700	2350	1230	1030	1190	1430
20	3680	1920	1930	1160	1330	5280	2600	2240	1470	1620	1100	1480
21	8460	1880	1960	1230	1240	4930	2470	2130	1830	1110	1010	1520
22	7370	1860	1570	1200	1170	8780	2260	1950	1590	934	1540	1330
23	6210	1810	1720	1120	1260	18400	2120	1870	1390	901	1270	1310
24	5590	1760	1670	1170	2390	10900	3560	1710	1050	1060	1120	1730
25	5820	1710	1530	1210	11000	8790	6690	1650	1120	1190	1040	3440
26	6680	1630	1660	1170	5970	7520	5830	1610	1590	1130	981	4550
27	6130	1610	1590	1100	4750	6730	5890	1540	1350	1020	939	5190
28	5670	1610	1510	1060	6000	6380	5390	1490	1320	900	921	5630
29	5490	1760	1480	968	---	6460	4990	1450	1340	936	930	4420
30	4780	1720	1280	975	---	6950	3910	1430	1210	952	904	3280
31	5510	---	1240	971	---	7830	---	1410	---	995	856	---
TOTAL	163440	82030	68560	36694	58095	258660	161010	76220	44700	34541	35884	51884
MEAN	5272	2734	2212	1184	2075	8344	5367	2459	1490	1114	1158	1729
MAX	12900	5650	6500	1400	11000	18400	10300	3760	2520	1620	1540	5630
MIN	2010	1610	1240	968	952	4750	2120	1410	1050	900	856	710
CFSM	3.88	2.01	1.63	.87	1.53	6.14	3.95	1.81	1.10	.82	.85	1.27
IN.	4.47	2.25	1.88	1.00	1.59	7.08	4.41	2.09	1.22	.95	.98	1.42

CAL YR 1976 TOTAL 1135607 MEAN 3103 MAX 30600 MIN 919 CFSM 2.28 IN 31.09
WTR YR 1977 TOTAL 1071718 MEAN 2936 MAX 18400 MIN 710 CFSM 2.16 IN 29.34

01454720 LEHIGH RIVER AT EASTON, PA

LOCATION.--Lat 40°41'12", long 75°12'32", Northampton County, Hydrologic Unit 02040106, at Third Street Bridge, Easton, U.S. Highway 611.

DRAINAGE AREA.--1,360 mi² (3,530 km²).

PERIOD OF RECORD.--October 1961 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1963 to current year.
pH: October 1972 to September 1974, October 1975 to current year.
WATER TEMPERATURES: October 1961 to current year.
DISSOLVED OXYGEN: June 1966 to current year.

COOPERATION.--Once-monthly water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 581 micromhos Aug. 19, 1963; minimum, 70 micromhos Nov. 14, 1970.
pH: Maximum, 8.1 April 25, 1973; minimum, 6.2 Sept. 6, 1974.
WATER TEMPERATURES: Maximum, 30.5°C July 29, 1970; minimum, freezing point on many days during winter periods.
DISSOLVED OXYGEN: Maximum, 15.0 mg/L Feb. 22, 23, 1971; minimum, 0.0 mg/L Aug. 4, 1966.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL-LECTING SAMPLE	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (JTU)	DIS-SOLVED OXYGEN (MG/L)	BIO-CHEM-ICAL OXYGEN DEMAND 5 DAY (MG/L)
OCT								
27...	1225	9813	140	7.5	8.5	5	10.3	--
NOV								
22...	1130	9813	230	7.5	5.0	4	9.7	1.5
DEC								
20...	1130	9813	230	--	--	3	--	--
JAN								
26...	1015	9813	320	7.7	4.0	3	10.0	--
FEB								
16...	1125	9813	300	--	4.0	4	11.2	4.0
MAR								
28...	1005	9813	150	7.5	8.0	4	11.3	--
APR								
12...	1000	9813	170	7.5	12.0	3	10.2	--
MAY								
10...	1130	9813	210	7.3	11.5	4	--	2.0
JUN								
23...	1000	9813	260	7.6	30.5	1	7.2	--
JUL								
07...	1000	9813	350	7.4	24.5	3	6.0	--
AUG								
11...	1145	9813	330	7.3	26.5	5	6.1	4.3
SEP								
21...	1000	9813	290	--	20.5	5	6.6	--

DATE	HARD-NESS (CA,MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	TOTAL FILT-RABLE RESIDUE (MG/L)
OCT									
27...	30	--	0	11	.5	28	14	10	116
NOV									
22...	90	--	0	28	10	160	35	16	162
DEC									
20...	80	0	0	18	8.5	55	34	16	134
JAN									
26...	100	--	0	23	10	70	36	28	206
FEB									
16...	88	0	0	24	7.0	56	42	35	176
MAR									
28...	45	--	0	13	2.7	30	18	13	118
APR									
12...	54	0	0	14	4.5	44	20	14	114
MAY									
10...	66	--	0	19	4.5	46	30	17	138
JUN									
23...	88	--	0	21	8.5	54	36	24	182
JUL									
07...	125	--	0	32	10	82	48	30	--
AUG									
11...	110	--	0	25	11	64	35	23	210
SEP									
21...	88	--	0	23	7.5	58	33	23	172

01454720 LEHIGH RIVER AT EASTON, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
OCT 27...	1.2	.04	.32	.16	460	--	--	--
NOV 22...	1.8	.03	.99	.28	200	.01	<10	.00
DEC 20...	1.7	.05	1.5	.27	330	--	--	--
JAN 26...	1.6	--	2.3	.47	210	--	--	--
FEB 16...	2.4	.05	1.3	.33	440	.01	<10	.01
MAR 28...	1.6	.03	.37	.09	420	--	--	--
APR 12...	1.5	.04	.45	.13	330	--	--	--
MAY 10...	1.6	.06	.74	.20	240	.02	<10	<.01
JUN 27...	1.8	.14	.95	.26	360	--	--	--
JUL 07...	2.2	.37	1.3	.36	300	--	--	--
AUG 11...	2.0	.22	.82	.38	340	.02	<10	.03
SEP 21...	.84	.13	.75	.38	570	--	--	--

DATE	TIME	CODE FOR AGENCY COLLECTING SAMPLE	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)
NOV 22...	1130	9813	<10	<10	<50	130	<10	320
FEB 16...	1125	9813	10	20	<50	150	10	400
MAY 10...	1130	9813	<10	<10	<50	100	<10	230
AUG 11...	1145	9813	20	20	<50	120	40	50

01454720 LEHIGH RIVER AT EASTON, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	232	195	218	---	---	---	252	240	244	281	269	273
2	237	224	230	---	---	---	281	251	263	283	271	276
3	227	216	220	---	---	---	273	258	265	275	223	258
4	213	173	187	---	---	---	282	272	277	271	248	256
5	184	173	179	---	---	---	---	---	---	271	259	265
6	183	175	179	---	---	---	---	---	---	278	266	270
7	188	177	184	---	---	---	---	---	---	292	274	281
8	203	182	195	---	---	---	---	---	---	293	274	283
9	207	129	181	---	---	---	---	---	---	294	288	293
10	---	---	---	---	---	---	194	185	189	327	280	295
11	---	---	---	---	---	---	196	180	194	373	262	305
12	---	---	---	---	---	---	204	196	201	395	327	366
13	---	---	---	203	194	198	199	194	197	326	312	316
14	---	---	---	209	194	203	---	---	---	324	311	316
15	---	---	---	201	195	198	---	---	---	327	310	317
16	---	---	---	215	197	208	---	---	---	321	311	316
17	---	---	---	236	213	225	---	---	---	332	310	320
18	---	---	---	245	231	239	229	225	226	344	310	331
19	---	---	---	248	239	243	232	216	224	363	336	350
20	---	---	---	242	230	237	237	213	221	345	340	341
21	151	118	128	229	221	223	234	216	226	---	---	---
22	195	119	171	221	214	218	236	219	227	---	---	---
23	188	175	183	234	219	227	255	234	247	---	---	---
24	---	---	---	238	232	235	253	241	247	---	---	---
25	---	---	---	242	235	237	246	241	243	---	---	---
26	---	---	---	242	234	238	251	239	245	---	---	---
27	---	---	---	242	224	237	246	232	241	---	---	---
28	---	---	---	243	237	240	250	240	244	---	---	---
29	---	---	---	243	233	238	272	251	261	---	---	---
30	---	---	---	245	234	240	269	255	260	---	---	---
31	---	---	---	---	---	---	281	265	272	---	---	---
MONTH	237	118	188	248	194	227	282	180	237	395	223	301

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	145	130	137	---	---	---
2	365	357	361	---	---	---	166	139	146	---	---	---
3	370	357	364	229	190	207	164	151	157	---	---	---
4	376	361	368	235	181	193	158	150	154	188	182	185
5	381	361	373	243	179	199	181	147	167	191	179	186
6	376	352	363	---	---	---	181	170	177	190	181	186
7	371	357	364	150	147	148	175	154	162	187	179	182
8	363	349	355	155	141	147	173	160	167	192	183	188
9	412	352	368	153	138	146	187	159	172	188	183	186
10	387	369	376	150	131	140	200	180	188	197	181	190
11	383	368	375	162	136	147	204	191	197	183	174	179
12	403	373	382	176	158	164	210	197	204	182	169	177
13	403	367	387	205	169	180	228	201	209	179	164	170
14	365	325	347	236	178	199	229	171	207	219	181	208
15	323	289	305	338	180	247	193	169	180	208	143	175
16	294	283	289	292	274	285	213	170	199	143	122	130
17	296	282	289	274	256	262	221	209	217	133	125	129
18	312	293	300	256	217	237	227	217	223	150	129	140
19	326	306	315	243	220	231	240	226	235	157	140	148
20	326	310	318	243	226	230	236	200	220	150	138	145
21	310	300	305	239	222	229	222	212	217	145	138	141
22	325	302	311	249	217	229	229	213	224	145	133	139
23	351	325	339	278	198	234	243	225	236	149	136	142
24	346	304	335	277	262	268	242	185	229	163	142	151
25	308	267	284	277	258	265	181	115	132	169	159	164
26	---	---	---	---	---	---	151	128	135	248	162	189
27	---	---	---	---	---	---	143	137	140	187	175	180
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	173	167	169	---	---	---	---	---	---
30	---	---	---	168	153	159	---	---	---	---	---	---
31	---	---	---	157	136	144	---	---	---	---	---	---
MONTH	412	267	341	338	131	202	243	115	186	248	122	167

01454720 LEHIGH RIVER AT EASTON, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	333	320	325	377	341	359	---	---	---
2	---	---	---	342	324	333	351	325	337	---	---	---
3	---	---	---	365	334	349	352	325	340	---	---	---
4	---	---	---	474	335	348	346	269	293	---	---	---
5	---	---	---	358	335	346	326	284	305	---	---	---
6	---	---	---	357	339	348	359	326	341	378	320	349
7	---	---	---	359	336	347	373	348	360	388	320	371
8	---	---	---	339	313	326	353	326	346	412	370	387
9	---	---	---	317	305	312	333	313	321	415	395	406
10	---	---	---	317	297	305	322	288	313	439	399	413
11	---	---	---	300	282	293	329	291	319	438	417	427
12	---	---	---	311	275	288	340	287	315	441	389	410
13	---	---	---	337	264	320	345	316	332	387	303	347
14	---	---	---	370	283	342	332	296	309	325	296	307
15	---	---	---	365	298	348	313	300	307	339	316	326
16	323	302	314	340	329	335	326	307	314	378	331	360
17	331	315	321	---	---	---	356	328	348	371	338	351
18	336	322	327	---	---	---	362	349	354	344	296	323
19	351	337	344	---	---	---	349	325	342	300	290	294
20	344	319	337	---	---	---	328	316	322	294	269	284
21	338	280	306	---	---	---	334	315	325	291	263	279
22	278	262	269	---	---	---	313	281	305	277	259	263
23	281	258	268	---	---	---	288	263	274	295	277	286
24	302	184	286	---	---	---	319	289	304	295	288	292
25	345	303	325	347	318	332	385	317	358	287	199	239
26	362	328	348	318	217	293	402	380	391	198	165	180
27	326	296	310	326	190	279	411	388	399	165	145	152
28	335	311	321	379	131	326	438	407	421	161	128	147
29	350	324	338	394	356	373	430	417	423	147	123	129
30	347	311	328	402	380	389	---	---	---	170	147	159
31	---	---	---	405	380	390	---	---	---	---	---	---
MONTH	362	184	316	474	131	332	438	263	337	441	123	299

PH (UNITS), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.1	7.1	7.1	7.2	7.2	7.2	7.5	7.4	7.5	7.7	7.6	7.7
2	7.2	7.1	7.2	7.2	7.1	7.1	7.5	7.4	7.5	7.7	7.7	7.7
3	7.2	7.1	7.2	7.1	7.1	7.1	7.5	7.4	7.5	7.7	7.7	7.7
4	7.1	7.0	7.1	7.2	7.1	7.1	7.5	7.4	7.5	7.7	7.6	7.6
5	7.0	6.9	6.9	7.2	7.2	7.2	7.5	7.4	7.5	7.6	7.6	7.6
6	6.9	6.9	6.9	7.3	7.2	7.2	7.5	7.4	7.4	7.6	7.6	7.6
7	7.0	6.8	6.9	7.3	7.2	7.3	7.4	7.3	7.3	7.7	7.6	7.6
8	7.0	7.0	7.0	7.3	7.3	7.3	7.4	7.1	7.2	7.7	7.6	7.7
9	7.3	7.0	7.1	7.3	7.3	7.3	7.2	7.2	7.2	7.8	7.7	7.7
10	---	---	---	7.3	7.3	7.3	7.2	7.1	7.2	7.8	7.7	7.7
11	---	---	---	7.3	7.3	7.3	7.3	7.2	7.2	7.8	7.4	7.7
12	---	---	---	7.4	7.3	7.3	7.3	7.2	7.3	7.6	7.5	7.6
13	---	---	---	7.4	7.3	7.3	7.3	7.3	7.3	7.6	7.5	7.6
14	---	---	---	7.4	7.3	7.4	---	---	---	7.6	7.5	7.5
15	---	---	---	7.4	7.3	7.4	---	---	---	7.5	7.5	7.5
16	---	---	---	7.4	7.3	7.4	---	---	---	7.6	7.5	7.5
17	---	---	---	7.4	7.3	7.4	---	---	---	7.7	7.6	7.6
18	---	---	---	7.4	7.3	7.4	---	---	---	7.8	7.7	7.7
19	---	---	---	7.4	7.3	7.4	---	---	---	7.9	7.5	7.7
20	---	---	---	7.4	7.4	7.4	---	---	---	---	---	---
21	7.2	7.0	7.1	7.4	7.4	7.4	---	---	---	---	---	---
22	7.0	6.8	6.9	7.5	7.4	7.5	---	---	---	---	---	---
23	7.0	6.9	7.0	7.5	7.4	7.5	7.7	7.5	7.7	---	---	---
24	---	---	---	7.5	7.4	7.5	7.8	7.7	7.8	---	---	---
25	---	---	---	7.5	7.4	7.4	7.9	7.8	7.9	---	---	---
26	---	---	---	7.5	7.4	7.4	7.9	7.8	7.8	---	---	---
27	---	---	---	7.5	7.4	7.4	7.7	7.6	7.7	---	---	---
28	---	---	---	7.5	7.4	7.4	7.6	7.4	7.5	---	---	---
29	---	---	---	7.4	7.4	7.4	7.5	7.5	7.5	---	---	---
30	---	---	---	7.4	7.3	7.4	7.6	7.5	7.6	---	---	---
31	---	---	---	---	---	---	7.7	7.5	7.6	---	---	---
MONTH	7.3	6.8	7.0	7.5	7.1	7.3	7.9	7.1	7.5	7.9	7.4	7.6

01454720 LEHIGH RIVER AT EASTON, PA--Continued

PH (UNITS), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1				---	---	---	7.2	7.1	7.1	---	---	---
2				---	---	---	7.2	7.1	7.1	---	---	---
3				7.2	7.1	7.2	7.3	7.1	7.2	---	---	---
4				7.2	7.0	7.2	7.2	7.1	7.1	7.3	7.2	7.2
5				7.1	7.0	7.0	7.2	7.1	7.2	7.3	7.2	7.2
6				7.1	7.0	7.0	7.2	7.1	7.1	7.3	7.2	7.2
7				7.1	7.0	7.1	7.1	7.1	7.1	7.3	7.2	7.2
8				7.1	7.0	7.1	7.2	7.1	7.1	7.4	7.2	7.3
9				7.1	7.0	7.0	7.2	7.1	7.2	7.4	7.3	7.4
10				7.1	7.0	7.0	7.2	7.2	7.2	7.4	7.3	7.4
11				7.1	7.0	7.1	7.2	7.2	7.2	7.4	7.3	7.3
12				7.2	7.1	7.1	7.2	7.1	7.2	7.3	7.2	7.3
13				7.2	7.1	7.2	7.2	7.1	7.1	7.3	7.2	7.3
14				7.1	7.0	7.0	7.3	7.1	7.2	7.4	7.3	7.3
15				7.1	7.0	7.0	7.3	7.2	7.2	7.4	7.2	7.3
16				7.0	7.0	7.0	7.2	7.1	7.2	7.3	7.2	7.3
17				7.0	7.0	7.0	7.3	7.2	7.2	7.3	7.1	7.2
18				7.2	7.0	7.1	7.3	7.3	7.3	7.1	7.0	7.1
19				7.2	7.2	7.2	7.3	7.2	7.3	7.1	6.9	7.0
20				7.2	7.2	7.2	7.2	7.1	7.2	7.2	7.0	7.1
21				7.2	7.1	7.2	7.2	7.2	7.2	7.2	7.1	7.1
22				7.2	7.1	7.2	7.2	7.2	7.2	7.2	7.1	7.1
23				7.2	7.0	7.1	7.2	7.1	7.2	7.2	6.8	7.1
24				7.1	7.0	7.0	7.2	7.1	7.2	7.2	7.0	7.1
25				7.1	7.1	7.1	7.1	6.9	7.0	7.0	6.8	7.0
26				---	---	---	7.0	6.9	7.0	7.5	6.8	7.1
27				---	---	---	6.9	6.9	6.9	7.3	7.2	7.2
28				---	---	---	---	---	---	---	---	---
29				7.4	7.2	7.2	---	---	---	---	---	---
30				7.2	7.1	7.1	---	---	---	---	---	---
31				7.2	7.1	7.1	---	---	---	---	---	---
MONTH				7.4	7.0	7.1	7.3	6.9	7.2	7.5	6.8	7.2

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	7.3	7.1	7.2	7.2	7.1	7.2	7.1	7.1	7.1
2	---	---	---	7.4	7.1	7.2	7.3	7.1	7.2	7.2	7.0	7.1
3	---	---	---	7.4	7.1	7.2	7.2	7.1	7.1	7.2	7.0	7.1
4	---	---	---	7.2	7.1	7.2	7.1	7.0	7.1	7.2	7.0	7.1
5	---	---	---	7.1	7.0	7.0	7.2	7.1	7.1	7.2	7.0	7.1
6	---	---	---	7.0	6.8	6.9	7.2	7.0	7.1	7.2	7.0	7.1
7	---	---	---	7.2	6.8	7.0	7.2	7.0	7.1	7.3	7.0	7.1
8	---	---	---	7.2	7.1	7.1	7.2	7.0	7.1	7.2	7.0	7.1
9	---	---	---	7.1	7.0	7.1	7.3	7.1	7.2	7.3	7.0	7.2
10	---	---	---	7.1	7.0	7.0	7.3	7.0	7.1	7.3	7.1	7.2
11	---	---	---	7.0	6.9	6.9	7.2	7.1	7.1	7.3	7.1	7.2
12	---	---	---	7.2	6.8	7.0	7.2	7.0	7.1	7.3	7.1	7.2
13	---	---	---	7.4	7.0	7.2	7.1	7.1	7.1	7.2	7.1	7.2
14	---	---	---	7.4	7.1	7.2	7.1	7.0	7.1	7.2	7.0	7.1
15	---	---	---	7.4	7.1	7.3	7.2	7.0	7.1	7.2	7.1	7.1
16	7.1	7.0	7.1	7.3	7.2	7.2	7.1	7.0	7.1	7.1	7.1	7.1
17	7.1	7.0	7.0	---	---	---	7.1	7.0	7.1	7.1	7.0	7.1
18	7.2	7.0	7.1	---	---	---	7.2	7.0	7.1	7.1	7.0	7.0
19	7.2	7.0	7.1	---	---	---	7.2	7.1	7.1	7.1	7.0	7.0
20	7.2	7.0	7.1	---	---	---	7.2	7.1	7.1	7.0	6.8	6.9
21	7.1	6.7	7.0	---	---	---	7.2	7.1	7.1	7.0	6.9	7.0
22	7.1	6.9	7.0	---	---	---	7.2	7.0	7.1	7.0	6.9	7.0
23	7.1	7.0	7.0	---	---	---	7.1	7.1	7.1	7.0	6.8	7.0
24	7.2	7.0	7.1	---	---	---	7.1	7.1	7.1	7.0	7.0	7.0
25	7.1	7.0	7.0	7.3	7.2	7.2	7.1	7.0	7.1	7.1	7.0	7.0
26	7.0	7.0	7.0	7.2	7.1	7.1	7.2	7.1	7.1	7.1	6.7	7.0
27	7.0	6.9	6.9	7.2	7.1	7.1	7.2	7.1	7.1	6.9	6.5	6.8
28	6.9	6.7	6.8	7.3	6.9	7.2	7.2	7.1	7.1	6.8	6.7	6.8
29	6.7	6.6	6.6	7.3	7.1	7.2	7.2	7.1	7.1	6.8	6.7	6.7
30	7.3	6.6	6.9	7.3	7.1	7.2	7.4	7.0	7.2	6.9	6.8	6.8
31	---	---	---	7.3	7.1	7.2	7.3	7.1	7.1	---	---	---
MONTH	7.3	6.6	7.0	7.4	6.8	7.1	7.4	7.0	7.1	7.3	6.5	7.0

01454720 LEHIGH RIVER AT EASTON, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	15.5	15.5	15.5	9.5	8.5	9.0	5.0	4.0	4.5	1.5	1.0	1.0
2	15.5	15.0	15.0	8.5	7.5	8.0	4.0	3.5	4.0	2.0	0.5	1.5
3	15.5	15.0	15.0	8.5	8.0	8.0	3.5	2.0	3.0	2.5	1.5	2.0
4	16.0	15.0	15.5	9.0	8.5	9.0	2.5	2.0	2.5	3.5	2.0	3.0
5	16.0	15.5	16.0	9.0	8.5	9.0	4.0	2.5	3.0	3.5	3.0	3.5
6	16.0	15.5	15.5	8.5	7.5	8.0	4.0	3.5	3.5	3.5	2.5	3.0
7	16.0	15.0	15.5	8.0	7.0	7.5	5.5	4.0	4.5	3.5	3.0	3.5
8	16.5	16.0	16.0	8.0	6.5	7.0	4.0	2.0	2.5	3.0	2.0	2.5
9	17.5	16.0	17.0	6.5	5.5	6.0	2.5	2.0	2.5	3.0	2.0	2.0
10	---	---	---	6.0	5.5	6.0	4.0	2.0	3.0	3.0	1.5	2.0
11	---	---	---	6.5	6.0	6.0	4.5	4.0	4.0	2.0	1.0	1.5
12	---	---	---	7.0	6.0	6.5	5.0	4.5	5.0	1.5	1.0	1.0
13	---	---	---	6.0	5.5	6.0	5.5	5.0	5.0	1.5	1.0	1.5
14	---	---	---	6.0	5.5	5.5	---	---	---	2.0	1.5	1.5
15	---	---	---	5.5	5.5	5.5	---	---	---	3.5	2.0	3.0
16	---	---	---	6.0	5.5	5.5	---	---	---	3.5	2.0	3.0
17	---	---	---	6.0	5.5	6.0	---	---	---	2.0	0.5	1.5
18	---	---	---	6.5	6.0	6.0	3.5	3.5	3.5	1.0	0.5	1.0
19	---	---	---	7.0	6.5	6.5	4.0	3.5	3.5	1.5	0.5	1.0
20	---	---	---	7.0	6.5	6.5	4.5	3.5	4.0	1.0	1.0	1.0
21	11.0	11.0	11.0	6.5	6.0	6.5	4.5	3.0	4.0	---	---	---
22	11.5	10.5	11.0	6.0	5.5	6.0	3.0	1.5	2.5	---	---	---
23	11.0	10.5	11.0	5.5	5.0	5.0	3.0	1.5	2.5	---	---	---
24	---	---	---	5.0	4.5	5.0	3.0	2.0	3.0	---	---	---
25	---	---	---	5.0	4.5	5.0	2.0	2.0	2.0	---	---	---
26	---	---	---	5.5	4.5	5.0	3.0	1.5	2.5	---	---	---
27	---	---	---	7.0	5.5	6.5	3.0	2.0	2.5	---	---	---
28	---	---	---	8.0	7.0	8.0	2.0	1.5	2.0	---	---	---
29	---	---	---	8.0	7.0	8.0	3.5	2.0	2.5	---	---	---
30	---	---	---	7.0	5.0	6.0	2.5	2.0	2.0	---	---	---
31	---	---	---	---	---	---	2.0	1.5	1.5	---	---	---
MONTH	17.5	10.5	14.5	9.5	4.5	6.5	5.5	1.5	3.0	3.5	0.5	2.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	10.5	9.5	10.0	---	---	---
2	3.5	2.0	3.0	---	---	---	10.0	9.0	9.5	---	---	---
3	3.5	3.0	3.5	5.0	4.5	5.0	10.5	8.0	9.0	---	---	---
4	4.5	3.5	4.0	6.5	5.0	5.5	10.5	8.5	10.0	15.5	15.0	15.0
5	4.5	4.0	4.5	6.5	6.0	6.0	8.5	8.0	8.0	15.0	14.0	14.5
6	4.0	3.5	4.0	6.5	6.0	6.5	8.0	7.5	8.0	17.5	14.5	15.5
7	3.0	1.5	2.0	7.0	5.5	6.5	8.0	7.5	7.5	18.0	17.0	17.5
8	3.5	1.5	2.5	6.0	5.0	5.5	8.5	7.5	8.0	18.0	17.0	17.5
9	4.0	3.0	3.5	7.0	5.5	6.0	8.0	7.5	8.0	17.0	13.5	15.5
10	5.0	3.5	4.0	7.5	6.0	7.0	9.0	7.0	8.0	13.5	12.0	12.5
11	6.0	4.5	5.0	8.5	7.0	7.5	11.0	8.5	9.5	13.5	11.5	12.5
12	6.5	5.5	6.0	9.0	8.0	8.5	13.0	10.5	12.0	15.5	13.5	14.5
13	7.0	6.0	6.5	10.0	9.0	9.5	14.5	13.0	13.5	17.0	15.5	16.0
14	6.0	4.5	5.5	10.5	9.5	10.0	15.0	14.0	14.5	18.0	16.5	17.0
15	5.0	4.0	4.5	10.0	9.5	9.5	14.5	13.5	14.0	17.5	16.5	17.0
16	4.0	2.5	3.5	9.5	9.0	9.5	14.5	13.0	14.0	17.5	16.5	17.0
17	3.5	2.0	3.0	9.0	8.5	9.0	15.0	14.0	14.5	19.0	17.5	18.0
18	4.0	2.0	3.0	8.5	6.5	7.5	15.5	14.5	15.0	21.0	19.0	20.0
19	5.0	3.5	4.0	7.0	6.0	6.5	16.0	15.0	15.5	21.5	21.0	21.0
20	4.5	4.0	4.5	7.0	6.5	6.5	16.0	15.0	15.5	22.0	21.0	21.5
21	4.5	3.5	4.0	7.0	6.0	6.5	16.0	15.0	15.5	23.0	21.5	22.0
22	4.5	3.0	4.0	7.5	7.0	7.0	18.0	16.5	17.0	23.0	22.0	22.5
23	6.5	4.0	5.5	7.0	6.5	6.5	19.0	18.0	18.5	23.5	22.5	23.0
24	6.5	5.5	6.0	7.0	6.5	7.0	18.5	15.5	17.5	24.0	23.0	23.5
25	6.0	5.0	5.0	7.0	6.0	6.5	15.5	13.5	14.0	24.0	23.5	23.5
26	---	---	---	---	---	---	14.0	13.0	13.5	24.0	22.0	23.5
27	---	---	---	---	---	---	13.0	12.0	12.5	23.0	22.5	23.0
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	9.5	8.5	9.0	---	---	---	---	---	---
30	---	---	---	12.0	9.5	11.0	---	---	---	---	---	---
31	---	---	---	11.5	10.0	11.0	---	---	---	---	---	---
MONTH	7.0	1.5	4.0	12.0	4.5	7.5	19.0	7.0	12.5	24.0	11.5	18.5

01454720 LEHIGH RIVER AT EASTON, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	26.5	25.0	25.5	25.5	25.0	25.0	26.0	25.5	26.0
2	---	---	---	26.5	25.0	25.5	26.5	25.0	25.5	26.5	25.5	26.0
3	---	---	---	26.5	25.0	25.5	26.0	24.5	25.0	27.0	25.5	26.0
4	---	---	---	26.0	24.5	25.5	25.0	23.5	24.5	26.5	25.0	26.0
5	---	---	---	26.5	25.0	25.5	26.5	24.0	25.0	26.0	25.0	25.5
6	---	---	---	27.0	25.5	26.0	27.0	25.5	26.0	25.5	24.5	25.0
7	---	---	---	26.0	25.5	25.5	27.0	26.0	26.5	25.5	24.0	25.0
8	---	---	---	26.0	24.5	25.0	27.5	26.0	26.5	25.0	24.0	24.5
9	---	---	---	26.0	25.0	25.5	27.5	26.0	27.0	24.5	23.5	24.0
10	---	---	---	26.5	25.0	25.5	27.0	26.0	26.5	25.0	23.5	24.0
11	---	---	---	26.0	25.0	25.5	27.0	26.0	26.5	24.5	23.5	24.0
12	---	---	---	28.0	24.5	26.0	27.0	25.5	26.0	24.0	22.5	23.0
13	---	---	---	28.5	27.0	28.0	26.5	25.5	26.0	22.5	21.5	22.0
14	---	---	---	28.0	27.0	27.5	25.5	24.5	25.0	22.5	22.0	22.0
15	---	---	---	27.5	26.0	26.5	26.0	24.5	25.0	22.5	21.5	22.0
16	24.5	23.0	24.0	26.5	25.5	26.0	25.5	24.5	25.0	22.0	21.5	21.5
17	24.5	23.0	23.5	---	---	---	25.5	25.0	25.0	22.0	21.5	21.5
18	25.5	23.0	24.0	---	---	---	25.0	24.5	25.0	23.0	21.5	22.0
19	26.0	24.0	25.0	---	---	---	25.0	23.5	24.0	23.5	22.0	23.0
20	26.5	24.5	25.5	---	---	---	24.5	23.0	24.0	24.0	23.0	23.5
21	25.0	24.0	24.5	---	---	---	24.0	22.5	23.5	23.0	22.0	22.5
22	24.5	22.5	24.0	---	---	---	24.0	22.5	23.5	22.0	21.0	21.5
23	24.5	23.0	24.0	---	---	---	24.0	22.5	23.0	21.0	20.5	21.0
24	25.0	23.0	24.0	---	---	---	23.5	23.0	23.0	20.5	19.5	20.5
25	24.5	23.5	24.0	26.0	25.5	26.0	24.0	22.5	23.0	19.5	18.0	19.0
26	24.5	23.5	24.0	25.5	24.5	25.0	24.0	22.5	23.5	18.0	17.5	18.0
27	25.5	23.5	24.5	25.5	24.0	24.5	24.5	23.0	23.5	18.0	17.5	18.0
28	25.5	24.0	25.0	25.5	23.5	24.5	25.5	23.5	24.5	18.5	18.0	18.0
29	26.0	24.5	25.0	25.5	24.0	24.5	26.5	24.0	25.5	18.5	18.0	18.5
30	26.5	24.5	25.5	25.0	24.0	24.5	27.0	25.5	26.0	19.0	18.5	18.5
31	---	---	---	26.0	24.5	25.0	27.0	26.0	26.0	---	---	---
MONTH	26.5	22.5	24.5	28.5	23.5	25.5	27.5	22.5	25.0	27.0	17.5	22.5

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	9.0	8.7	8.9	---	---	---	14.1	11.8	13.3	13.4	12.5	12.9
2	9.1	8.9	9.0	---	---	---	13.5	12.9	13.2	13.7	13.2	13.4
3	9.4	9.0	9.3	---	---	---	14.5	13.4	14.0	13.7	13.3	13.4
4	9.8	9.3	9.6	---	---	---	14.2	13.8	14.0	13.6	12.9	13.4
5	9.5	9.2	9.4	---	---	---	---	---	---	13.6	12.8	13.1
6	9.5	9.3	9.4	---	---	---	---	---	---	13.5	13.0	13.2
7	9.5	9.1	9.3	---	---	---	---	---	---	13.1	12.7	12.9
8	9.2	8.6	8.8	---	---	---	---	---	---	13.4	12.5	12.9
9	9.2	8.2	8.6	---	---	---	---	---	---	13.6	12.8	13.1
10	---	---	---	---	---	---	---	---	---	13.2	13.0	13.1
11	---	---	---	---	---	---	---	---	---	13.1	12.6	13.0
12	---	---	---	---	---	---	---	---	---	13.2	12.4	12.7
13	---	---	---	13.1	13.0	13.1	---	---	---	13.1	12.5	12.7
14	---	---	---	13.2	13.1	13.1	---	---	---	12.7	12.3	12.5
15	---	---	---	13.2	13.0	13.2	---	---	---	12.5	11.8	12.1
16	---	---	---	13.2	12.9	13.0	---	---	---	12.3	11.5	11.9
17	---	---	---	13.0	12.5	12.9	---	---	---	12.9	11.8	12.2
18	---	---	---	12.6	11.9	12.2	---	---	---	13.0	12.5	12.7
19	---	---	---	12.0	11.7	11.9	---	---	---	12.8	12.1	12.4
20	---	---	---	11.8	11.6	11.7	---	---	---	12.3	11.9	12.1
21	11.8	11.4	11.6	12.2	11.6	11.9	---	---	---	---	---	---
22	11.6	8.4	9.2	12.3	11.9	12.1	---	---	---	---	---	---
23	9.4	8.8	9.0	12.4	12.1	12.2	12.0	11.5	11.7	---	---	---
24	---	---	---	12.3	12.2	12.2	12.1	11.7	12.0	---	---	---
25	---	---	---	---	---	---	13.0	12.2	12.5	---	---	---
26	---	---	---	---	---	---	13.2	12.5	12.9	---	---	---
27	---	---	---	---	---	---	13.1	12.5	12.8	---	---	---
28	---	---	---	---	---	---	13.3	12.8	13.0	---	---	---
29	---	---	---	---	---	---	12.9	12.4	12.7	---	---	---
30	---	---	---	11.6	10.1	10.7	12.9	12.3	12.6	---	---	---
31	---	---	---	---	---	---	13.2	12.5	12.8	---	---	---
MONTH	11.8	8.2	9.3	13.2	10.1	12.3	14.5	11.5	12.9	13.7	11.5	12.8

01454720 LEHIGH RIVER AT EASTON, PA--Continued

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	11.7	11.4	11.5	---	---	---
2	---	---	---	---	---	---	11.5	11.0	11.2	---	---	---
3	---	---	---	12.3	10.4	11.2	11.8	10.8	11.5	---	---	---
4	---	---	---	11.3	9.5	10.8	11.1	10.6	10.8	8.6	8.3	8.4
5	---	---	---	10.3	9.2	9.9	11.3	10.7	11.0	8.8	8.3	8.6
6	---	---	---	---	---	---	10.9	10.6	10.7	8.8	8.0	8.4
7	---	---	---	12.5	12.1	12.3	11.2	10.6	11.0	8.0	7.6	7.8
8	---	---	---	13.8	12.1	12.9	11.0	9.9	10.4	8.4	7.7	8.1
9	11.1	10.6	10.8	13.9	12.6	13.3	10.2	10.0	10.1	8.9	8.0	8.4
10	---	---	---	13.0	12.7	12.9	10.1	9.3	9.8	9.7	8.8	9.2
11	---	---	---	12.9	11.4	12.0	9.3	7.4	8.6	9.8	9.3	9.6
12	---	---	---	---	---	---	---	---	---	9.2	8.7	9.0
13	---	---	---	---	---	---	---	---	---	8.9	8.1	8.5
14	---	---	---	---	---	---	8.3	8.2	8.3	8.4	7.6	8.0
15	11.3	10.8	11.1	---	---	---	8.4	7.2	7.7	8.6	7.7	8.1
16	11.6	10.8	11.3	---	---	---	10.9	6.9	9.7	8.8	7.7	8.3
17	11.3	10.4	11.0	---	---	---	10.1	9.4	9.8	8.2	7.1	7.8
18	---	---	---	8.1	6.7	7.3	9.5	8.5	9.0	7.6	6.0	7.0
19	---	---	---	8.2	7.5	7.9	8.5	7.2	7.8	6.4	5.6	6.0
20	---	---	---	7.7	6.1	6.9	7.6	6.9	7.3	7.8	5.7	6.8
21	---	---	---	---	---	---	7.8	6.5	7.0	7.8	6.4	7.0
22	---	---	---	---	---	---	---	---	---	7.9	6.5	7.0
23	---	---	---	8.6	7.3	7.8	---	---	---	7.7	6.0	6.8
24	---	---	---	7.9	7.1	7.4	---	---	---	7.3	5.2	6.2
25	---	---	---	7.8	6.8	7.6	---	---	---	6.5	5.0	5.7
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	12.0	11.7	11.9	---	---	---	---	---	---
30	---	---	---	11.6	10.9	11.2	---	---	---	---	---	---
31	---	---	---	11.4	10.8	11.0	---	---	---	---	---	---
MONTH	11.6	10.4	11.1	13.9	6.1	10.3	11.8	6.5	9.6	9.8	5.0	7.8

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	7.2	5.2	6.1	7.8	5.3	6.4	6.2	4.5	5.3
2	---	---	---	8.0	5.0	6.4	8.5	5.9	7.1	6.7	4.5	5.4
3	---	---	---	8.5	5.0	6.5	7.5	5.6	6.4	7.2	4.6	5.5
4	---	---	---	7.5	4.9	6.2	7.4	6.0	6.8	7.6	4.7	5.7
5	---	---	---	7.8	4.7	6.2	7.6	6.3	6.9	6.7	4.4	5.6
6	---	---	---	7.8	4.6	6.0	7.6	5.5	6.4	6.6	4.4	5.5
7	---	---	---	5.6	4.6	5.0	7.3	5.3	6.2	7.4	4.0	5.5
8	---	---	---	5.9	4.4	4.9	8.0	5.5	6.7	6.4	4.0	5.3
9	---	---	---	5.0	4.2	4.7	7.8	5.9	6.8	7.2	4.4	6.0
10	---	---	---	5.2	4.1	4.6	7.4	5.4	6.2	7.3	5.0	5.9
11	---	---	---	4.5	3.6	4.0	7.2	5.7	6.2	7.2	4.9	5.9
12	---	---	---	6.8	5.1	6.3	6.6	5.3	5.9	7.4	5.3	6.4
13	---	---	---	7.9	4.0	5.6	6.5	5.3	5.8	7.4	6.1	6.7
14	---	---	---	7.9	4.0	5.6	6.4	5.6	6.0	7.3	5.8	6.5
15	---	---	---	7.7	4.5	6.0	7.2	5.9	6.4	7.6	5.8	6.6
16	7.3	6.4	6.9	6.0	4.9	5.2	6.6	5.7	6.1	6.5	5.6	5.9
17	6.9	5.8	6.3	---	---	---	6.0	5.0	5.5	6.6	5.8	6.1
18	6.5	5.3	5.8	---	---	---	6.7	5.1	5.8	6.9	5.9	6.4
19	5.8	4.3	5.0	---	---	---	7.2	5.5	6.3	7.1	6.2	6.6
20	5.8	3.6	4.6	---	---	---	7.3	6.0	6.5	6.3	5.6	6.0
21	---	---	---	---	---	---	7.3	5.8	6.5	6.5	5.5	6.0
22	7.7	4.9	6.7	---	---	---	7.3	5.9	6.6	6.5	6.1	6.3
23	7.2	6.1	6.6	---	---	---	7.2	6.5	6.8	6.8	6.0	6.3
24	7.4	5.5	6.4	---	---	---	6.8	6.0	6.4	6.9	6.3	6.6
25	6.2	5.0	5.5	6.6	5.5	6.0	7.2	5.8	6.3	8.6	6.9	7.7
26	5.9	5.1	5.5	6.5	5.4	5.9	7.3	5.7	6.4	9.0	8.6	8.9
27	6.7	5.5	6.0	7.4	5.3	6.3	7.1	5.7	6.2	9.3	9.0	9.1
28	---	---	---	8.0	5.5	6.6	7.3	5.5	6.2	9.4	9.0	9.2
29	---	---	---	8.1	5.1	6.5	7.3	5.2	6.1	9.3	9.1	9.2
30	7.3	5.8	6.9	7.3	5.1	6.1	8.1	4.9	6.2	9.1	8.8	8.9
31	---	---	---	7.7	5.2	6.4	6.6	4.6	5.3	---	---	---
MONTH	7.7	3.6	6.0	8.5	3.6	5.8	8.5	4.6	6.3	9.4	4.0	6.6

LAKE AND RESERVOIRS IN LEHIGH RIVER BASIN

01447780 **FRANCIS E. WALTER RESERVOIR** (formerly published as Bear Creek Reservoir).--Lat 41°06'45", long 75°43'15", Luzerne County, Hydrologic Unit 02040106, at dam on Lehigh River, 2,200 ft (670 m) downstream from Bear Creek and 5 mi (8 km) northwest of White Haven. DRAINAGE AREA, 289 mi^2 (749 km^2). PERIOD OF RECORD, February 1961 to current year. GAGE, water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers).

Reservoir formed by an earthfill embankment covered with a rock shell, with concrete spillway at elevation, 1,450.0 ft (441.96 m). Storage began Feb. 17, 1961; water in reservoir first reached conservation pool elevation in June 1961. Total capacity at elevation 1,450.0 ft (441.96 m) is 110,700 acre-ft (136 hm^3) of which 108,700 acre-ft (134 hm^3) is controlled storage above elevation 1,300.0 ft or 396.24 m (conservation pool). Dead storage is 2,000 acre-ft (2.47 hm^3). Reservoir is used for flood control and recreation. Figures given herein represent total contents. Flow regulated by three gates and low flow by-pass system. Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 42,600 acre-ft (52.5 hm^3) June 26, 1972 (elevation, 1,398.20 ft or 426.171 m); minimum (after establishment of conservation pool), 1,400 acre-ft (1.73 hm^3) Apr. 5, 1976 (elevation, 1,293.75 ft or 394.335 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 16,723 acre-ft (20.6 hm^3) Oct. 11 (elevation, 1,361.13 ft or 414.872 m); minimum, 1,645 acre-ft (2.03 hm^3) Nov. 15 (elevation, 1,296.56 ft or 395.191 m).

01449400 **PENN FOREST RESERVOIR**.--Lat 40°55'45", long 75°33'45", Carbon County, Hydrologic Unit 02040106, at dam on Wild Creek near Hatchery, Pa., 0.7 mi (1.1 km) upstream from Hatchery, 2.6 mi (4.2 km) upstream from Wild Creek Dam, 4.4 mi (7.1 km) upstream from mouth, and 10 mi (16 km) northeast of Palmerton. DRAINAGE AREA 16.5 mi^2 (42.7 km^2). PERIOD OF RECORD, October 1958 to current year. GAGE, water-stage recorder. Datum of gage is at mean sea level (levels by city of Bethlehem).

Reservoir formed by an earthfill dam, with ungated concrete spillway at elevation, 1,000.00 ft (304,800 m). Storage began in October 1958. Capacity at elevation 1,000.00 ft (304.800 m) is 19,980 acre-ft (24.6 hm^3). Reservoir is used for municipal water supply. Figures given herein represent total contents. Regulation is done by valves on pipe through dam. Records furnished by city of Bethlehem. Figures given herein include diversion, since October 1969, from Tunkhannock Creek basin into Wild Creek basin.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 20,510 acre-ft (25.3 hm^3) Jan. 28, 1976 (elevation, 1,000.91 ft or 305.077 m); minimum, 176 acre-ft (0.217 hm^3) Oct. 6, 1965 (elevation, 902.40 ft or 275.052 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 20,510 acre-ft (25.3 hm^3) Mar. 23 (elevation, 1,000.91 ft or 305.077 m); minimum, 14,840 acre-ft (18.3 hm^3) Sept. 24 (elevation, 987.92 ft or 301.118 m).

01449700 **WILD CREEK RESERVOIR**.--Lat 40°53'50", long 75°33'50", Carbon County, Hydrologic Unit 02040106, at dam on Wild Creek near Hatchery, Pa., 1.6 mi (2.6 km) upstream from mouth, 2.4 mi (3.9 km) south of Hatchery, and 7.5 mi (12 km) northeast of Palmerton. DRAINAGE AREA, 22.2 mi^2 (57.5 km^2). PERIOD OF RECORD, January 1941 to current year. NONRECORDING GAGE. Datum of gage is at mean sea level (levels by city of Bethlehem).

Reservoir formed by earthfill dam, with concrete ungated spillway at elevation, 820.00 ft (249.936 m). Storage began January 27, 1941; water in reservoir first reached minimum pool elevation in February 1941. Total capacity at elevation 820.00 ft (249.936 m) is 12,500 acre-ft (15.4 hm^3) of which 12,000 acre-ft (15 hm^3) is controlled storage. Reservoir is used for municipal water supply. Figures given herein represent usable contents. Regulation is accomplished by valves on pipe through dam. Records furnished by city of Bethlehem. Since October 1969 the basin upstream has received diversion from Tunkhannock Creek basin

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 12,880 acre-ft (15.9 hm^3) May 23, 1942 (elevation, 822.93 ft or 250.829 m); minimum (after first filling), 2,680 acre-ft (3.30 hm^3) Nov. 15, 1966 (elevation, 774.10 ft or 235.946 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 12,348 acre-ft (15.2 hm^3) Mar. 23 (elevation, 821.16 ft or 250.290 m); minimum, 10,260 acre-ft (12.6 hm^3) Feb. 18 (elevation, 813.40 ft or 247.924 m).

01449790 **BELTZVILLE LAKE**.--Lat 40°50'56", long 75°38'19", Carbon County, Hydrologic Unit 02040106, at dam on Pohopoco Creek, 0.45 mi (0.72 km) upstream from gaging station on Pohopoco Creek, 0.55 mi (0.88 km) upstream from Sawmill Run and 2.3 mi (3.7 km) northeast of Parryville. DRAINAGE AREA, 96.3 mi^2 (249.4 km^2). PERIOD OF RECORD, February 1971 to current year. GAGE, water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers).

Reservoir formed by an earth and rockfill dam with ungated, partially lined spillway at elevation, 651.00 ft (198.425 m). Storage began Feb. 8, 1971. Capacity at elevation 651.00 ft (198.425 m) is 68,300 acre-ft (84.2 hm^3). Ordinary minimum (conservation) pool elevation, 628.00 ft or 191.414 m (capacity, 41,250 acre-ft or 50.9 hm^3). Dead storage is 1,390 acre-ft (1.71 hm^3). Reservoir is used for recreation, flood control, low-flow augmentation and water supply. Figures given herein represent total contents. Regulation is accomplished by a multi-level water-quality outlet system and two flood-control gates. Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 49,730 acre-ft (61.3 hm^3) Jan. 29, 1976 (elevation, 636.30 ft or 193.944 m); minimum, 136 acre-ft (0.168 hm^3) Feb. 8, 1971 (elevation, 516.20 ft or 157.338 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 47,278 acre-ft (58.3 hm^3) Mar. 25 (elevation, 634.04 ft or 193.255 m); minimum, 35,985 acre-ft (44.4 hm^3) Nov. 10 (elevation, 622.18 ft or 189.640 m).

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in cfs)	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in cfs)
	01447780	Francis E. Walter Reservoir		01449400	Penn Forest Reservoir	
Sept. 30	1,301.62	2,160	--	995.56	17,980	--
Oct. 31	1,315.45	3,820	+ 27.0	1,000.36	20,190	+ 35.9
Nov. 30	1,304.58	2,460	- 22.9	1,000.10	20,040	- 2.5
Dec. 31	1,302.38	2,240	- 3.6	1,000.02	19,990	- 0.8
CAL YR 1976	--	--	+ 0.3	--	--	- 0.2
Jan. 31	1,300.02	2,000	- 3.9	1,000.02	19,990	0
Feb. 28	1,344.79	10,120	+146	998.15	19,150	- 15.1
Mar. 31	1,329.30	6,240	- 63.1	1,000.38	20,200	+ 17.1
Apr. 30	1,305.22	2,530	- 62.3	1,000.19	20,090	- 1.8
May 31	1,300.40	2,040	- 8.0	1,000.00	19,980	- 1.8
June 30	1,300.45	2,040	0	998.36	19,240	- 12.4
July 31	1,300.10	2,010	- 0.5	994.88	17,680	- 25.4
Aug. 31	1,299.95	1,990	- 0.3	991.46	16,250	- 23.3
Sept. 30	1,311.66	3,300	+ 22.0	988.16	14,930	- 22.2
WTR YR 1977	--	--	+ 1.6	--	--	- 4.2
	01449700	Wild Creek Reservoir		01449790	Beltzville Lake	
Sept. 30	819.21	11,840	--	628.25	41,490	--
Oct. 31	820.43	12,130	+ 4.7	628.12	41,360	- 2.1
Nov. 30	819.88	11,980	- 2.5	623.26	36,920	- 74.6
Dec. 31	819.76	11,950	- 0.5	628.73	41,940	+ 81.6
CAL YR 1976	--	--	- 0.2	--	--	+ 0.2
Jan. 31	816.60	11,140	- 13.2	626.88	40,190	- 28.5
Feb. 28	817.07	11,270	+ 2.3	628.30	41,540	+ 24.3
Mar. 31	820.36	12,110	+ 13.7	629.72	42,920	+ 22.4
Apr. 30	820.20	12,060	- 0.8	628.27	41,510	- 23.7
May 31	819.01	11,800	- 4.2	627.60	40,870	- 10.4
June 30	819.17	11,830	+ 0.5	627.90	41,160	+ 4.9
July 31	819.02	11,800	- 0.5	627.16	40,450	- 11.5
Aug. 31	818.20	11,590	- 3.4	626.39	39,720	- 11.9
Sept. 30	818.23	11,600	+ 0.2	625.08	38,520	- 20.2
WTR YR 1977	--	--	- 0.3	--	--	- 4.1

TOHICKON CREEK BASIN

01459500 TOHICKON CREEK NEAR PIPERSVILLE, PA

LOCATION.--Lat 40°26'01", long 75°07'01", Bucks County, Hydrologic Unit 02040105, on right bank at highway bridge, 1.5 mi (2.4 km) northeast of Pipersville, and 4.5 mi (7.2 km) upstream from mouth.

DRAINAGE AREA.--97.4 mi² (252.3 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1935 to current year.

REVISED RECORDS.--WDR PA-75-1: 1974

GAGE.--Water-stage recorder. Datum of gage is 258.96 ft (78.931 m) above mean sea level.

REMARKS.--Records good except those for the period Nov. 30 to Feb. 19, which are fair. Regulation at low flow by mills above station, and since December 1973 by Nockamixon Lake about 6.2 mi (10.0 km) upstream.

AVERAGE DISCHARGE.--42 years, 141 ft³/s (3.99 m³/s), 19.71 in/yr (501 mm/yr), adjusted for storage since December 1973.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,000 ft³/s (453 m³/s) Aug. 18, 1955, gage height, 11.26 ft (3.432 m), from rating curve extended above 3,600 ft³/s (102 m³/s) on basis of slope-area measurement at gage height 10.48 ft (3.194 m); minimum, 0.05 ft³/s (0.001 m³/s) Sept. 29, 1941; minimum daily, 0.1 ft³/s (0.003 m³/s) Sept. 24, 29, Oct. 6, 1941.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,520 ft³/s (156 m³/s) Mar. 22, gage height, 7.42 ft (2.262 m); minimum daily, 4.2 ft³/s (0.12 m³/s) July 30, 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	224	10	17	10	270	73	110	8.3	14	4.6	7.1
2	11	136	9.6	15	10	178	127	88	9.9	12	6.4	6.4
3	13	89	10	14	11	123	562	78	9.5	10	9.6	6.1
4	12	70	9.6	13	11	527	370	63	9.2	8.0	11	5.8
5	9.2	61	10	11	12	1280	2910	241	7.8	7.1	14	5.1
6	8.5	53	13	10	12	540	1410	284	7.9	6.7	15	4.4
7	8.1	43	208	15	11	294	467	253	8.2	7.2	15	8.8
8	8.1	41	591	13	10	190	270	163	8.3	8.2	15	7.0
9	19	36	258	11	11	134	166	125	11	9.3	14	4.8
10	47	30	130	20	12	108	121	104	17	8.8	27	4.6
11	55	28	83	40	20	91	98	75	17	7.7	28	4.4
12	45	25	64	25	50	81	88	59	14	131	24	4.4
13	37	24	55	20	100	863	77	53	12	538	39	4.6
14	35	21	45	18	250	3970	72	41	11	235	44	4.8
15	29	19	35	30	200	1030	53	33	11	103	46	4.6
16	24	14	31	25	150	408	50	27	10	57	36	5.0
17	20	15	31	22	120	231	40	25	8.9	40	45	6.7
18	18	15	30	20	90	201	36	25	8.9	31	28	5.3
19	15	16	26	18	70	260	34	28	9.4	24	22	5.0
20	17	15	26	16	58	205	31	26	10	26	19	6.1
21	89	14	31	14	54	182	30	24	14	23	16	5.3
22	128	13	40	13	41	1900	30	22	14	21	16	5.5
23	83	12	35	12	84	2620	29	20	12	16	15	5.3
24	55	13	32	13	846	683	31	18	10	11	15	11
25	53	11	31	14	2810	318	131	17	11	10	16	22
26	180	10	30	14	919	197	277	15	15	8.1	14	19
27	201	10	31	13	412	143	506	13	14	7.1	12	22
28	116	10	29	12	383	122	311	11	12	5.6	10	26
29	75	14	25	11	---	113	238	9.7	15	4.6	9.6	27
30	53	13	22	10	---	102	159	7.8	16	4.2	8.8	23
31	133	---	20	10	---	102	---	6.9	---	4.2	8.5	---
TOTAL	1608.9	1095	2001.2	509	6767	17466	8797	2065.4	342.3	1398.8	603.5	277.1
MEAN	51.9	36.5	64.6	16.4	242	563	293	66.6	11.4	45.1	19.5	9.24
MAX	201	224	591	40	2810	3970	2910	284	17	538	46	27
MIN	8.1	10	9.6	10	10	81	29	6.9	7.8	4.2	4.6	4.4
(/)	+15.9	-9.4	+1.14	-2.28	+13.9	-6.83	+2.35	-6.83	+1.18	-2.28	0	+1.18
MEAN≠	67.8	27.1	65.7	14.1	256	557	296	59.8	12.6	42.8	19.5	10.4
CFSM≠	.70	.28	.67	.15	2.62	5.71	3.03	.61	.13	.44	.20	.11
IN.≠	.80	.31	.77	.17	2.73	6.59	3.39	.71	.14	.51	.23	.12

CAL YR 1976 TOTAL 28253.0 MEAN 77.2 MAX 2600 MIN 5.3 MEAN≠ 110 CFSM≠ 1.13 IN.≠ 15.43
WTR YR 1977 TOTAL 42931.2 MEAN 118 MAX 3970 MIN 4.2 MEAN≠ 118 CFSM≠ 1.21 IN.≠ 16.48

/ Change in contents in Nockamixon Lake, equivalent in cubic feet per second.
≠ Adjusted for change in contents in Nockamixon Lake.

01459500 TOHICKON CREEK NEAR PIPERSVILLE, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1975 to current year.

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER QUALITY DATA, NOVEMBER 1976 TO AUGUST 1977

DATE	TIME	CODE FOR AGENCY COL-LECTING SAMPLE	INSTAN-TANEOUS DIS-CHARGE (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (JTU)	DIS-SOLVED OXYGEN (MG/L)	HARD-NESS (CA,MG) (MG/L)
NOV 09...	1130	9813	35	200	--	5.0	3	--	90
FEB 17...	1330	9813	120	220	--	1.0	2	--	72
MAY 18...	1000	9813	24	180	--	20.0	2	--	54
AUG 09...	1345	9813	14	175	9.0	29.0	2	10.0	58

DATE	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	TOTAL FLUO-RIDE (F) (MG/L)	TOTAL FILT-RABLE RESIDUE (MG/L)
NOV 09...	0	0	16	12	52	16	19	.1	94
FEB 17...	0	0	18	6.5	48	28	43	.1	112
MAY 18...	--	0	13	5.0	78	28	18	--	124
AUG 09...	--	0	14	5.5	158	18	16	--	100

DATE	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	TOTAL RESI-DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
NOV 09...	26	120	.91	.03	.08	.07	200	.00
FEB 17...	16	128	1.0	.03	.27	.08	280	<.01
MAY 18...	2	126	.68	.02	.14	.04	120	--
AUG 09...	16	--	.58	.03	.05	.05	90	--

01463500 DELAWARE RIVER AT TRENTON, NJ

(National stream quality accounting network, Pesticide program, and Radiochemical program)

LOCATION.--Lat 40°13'18", long 74°46'42", Mercer County, Hydrologic Unit 02040105, on left bank 450 ft (137 m) upstream from Calhoun Street Bridge at Trenton, 0.5 mi (0.8 km) upstream from Assunpink Creek, and at mile 134.5 (216.4 km).

DRAINAGE AREA.--6,780 mi² (17,560 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Water years 1913 to current year. October 1912 to February 1913 monthly discharge only, published in WSP 1302. Gage-height record collected in this vicinity since 1904 are contained in reports of the National Weather Service.

REVISED DISCHARGE RECORDS.--WSP 951: Drainage area. WSP 1302: 1913-20. WSP 1382: 1924, 1928.

GAGE.--Water-stage recorder. Datum of gage is NGVD. Prior to Sept. 30, 1965, at datum 7.77 ft (2.368 m) higher. Feb. 24, 1913, to Oct. 2, 1928, nonrecording gage on downstream side of highway bridge at site 500 ft (152 m) downstream.

REMARKS.--Discharge records excellent except those from Dec. 14 to Feb. 24, which are good. Diurnal fluctuations at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lakes Wallenpaupack and Hopatcong, and by Pepacton, Cannonsville, Swinging Bridge, Toronto, Cliff Lake, Neversink, and Wild Creek Reservoirs (see Delaware River Basin, reservoirs in) and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs and to Delaware and Raritan Canal (see Delaware River Basin, diversions). Water diverted just above station by borough of Morrisville, PA, and city of Trenton for municipal supply (see Delaware River Basin, diversions).

AVERAGE DISCHARGE.--65 years, 11,670 ft³/s (330.5 m³/s), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 329,000 ft³/s (9,320 m³/s) Aug. 20, 1955 (elevation, 28.60 ft or 8.717 m, from high-water mrak in gage house) from rating curve extended above 230,000 ft³/s (6,510 m³/s); minimum, 1,180 ft³/s (33.4 m³/s) Oct. 31, 1963, elevation, 7.26 ft (2.213 m). Flow in Delaware and Raritan Canal not included.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 11, 1903, reached an elevation of about 28.5 ft (8.69 m) NGVD discharge estimated, 295,000 ft³/s (8,350 m³/s). Maximum elevation since 1903, 30.6 ft (9.33 m) NGVD, March 8, 1904, from floodmark (ice jam).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 50,000 ft³/s (1,420 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Oct. 11	0115	63,200	1,790	15.13	4.612
Mar. 6	0330	60,000	1,699	14.88	4.535
Mar. 15	1045	*117,000	3,313	18.75	5.715
Mar. 23	1300	69,000	1,954	15.57	4.746
Apr. 1	1045	55,800	1,580	14.55	4.435
Apr. 5	0915	61,200	1,733	14.98	4.566

Minimum daily discharge, 2,200 ft³/s (62.3 m³/s) Feb. 1; minimum gage height, 7.78 ft (2.371 m) July 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6890	19900	6230	3350	2200	27900	54200	17100	3690	4230	3410	3320
2	6440	21900	6120	3600	3160	26000	45500	14600	3760	3960	3380	3060
3	6510	19800	5620	3700	3000	21600	44700	13900	3790	3760	3440	3170
4	6830	17400	4760	4200	2770	21400	50600	13900	3530	3560	4930	2970
5	7940	16400	4810	4900	2720	47700	54700	13900	3380	3020	4130	3030
6	8150	16100	4670	4450	2920	55900	51700	15200	3230	2960	3560	2670
7	6910	14900	4860	4000	3520	43700	46100	19000	3890	3080	3410	2640
8	6420	13900	17200	3500	3940	33100	39400	17200	3960	3560	3350	2810
9	7400	13200	17400	4050	4670	26900	33100	14900	4160	4130	3410	3140
10	34300	12700	15800	4250	4730	23900	27800	14400	4820	4160	3960	2990
11	50700	11500	14000	3300	4080	22800	24300	15900	7100	3890	4410	2730
12	29500	10700	12400	3900	4270	23000	22100	15500	8050	3790	4090	2730
13	21700	10400	11100	3650	4850	26400	20300	14900	6280	6950	3660	2670
14	18900	9990	8000	4150	5670	72900	18800	14100	5050	4560	3960	2520
15	18100	9210	7700	4750	5300	107000	17300	13700	4230	4060	3560	2940
16	16200	8890	7950	4150	5050	69800	15800	12400	4270	3850	3200	2850
17	13000	8750	8250	2950	5270	50100	13900	11600	4130	4170	3320	3420
18	11500	8490	7600	2500	5270	40000	11700	10500	3890	3350	3560	4200
19	10600	8030	6800	4450	4970	33600	10800	9800	3820	3630	3760	5280
20	11200	7720	6300	4350	4440	28700	10700	9800	3850	3960	3320	5880
21	14500	7330	6150	4250	4150	24300	10100	9380	4020	4970	3200	5320
22	33000	7290	4500	4000	3970	31400	9140	8960	4480	4300	3530	8150
23	35500	7090	5650	3650	4050	62900	8400	7400	4780	4300	3720	10800
24	25900	6940	6550	3750	4930	50100	8550	6550	4740	3470	3320	9140
25	22000	6710	5000	3550	32200	38200	17000	6190	4300	2860	3600	9320
26	23200	6370	4700	4400	26100	31100	29700	5920	4300	3170	3500	19700
27	26200	5690	4400	3650	24400	26500	30000	5660	4890	3020	3320	39600
28	23800	5560	3950	3050	27700	23600	26100	5160	4560	2670	3240	39000
29	20400	5480	4700	2950	---	24100	23300	4340	4340	2440	2580	24500
30	18100	5670	4250	2750	---	28300	20000	3960	4340	2580	2490	17700
31	16800	---	4350	2250	---	47700	---	3760	---	2990	2640	---
TOTAL	558590	324010	231770	116400	210300	1190600	795790	349580	133630	115400	108960	248250
MEAN	18020	10800	7476	3755	7511	38410	26530	11280	4454	3723	3515	8275
MAX	50700	21900	17400	4900	32200	107000	54700	19000	8050	6950	4930	39600
MIN	6420	5480	3950	2250	2200	21400	8400	3760	3230	2440	2490	2520

CAL YR 1976 TOTAL 4694260 MEAN 12830 MAX 99600 MIN 3280
WTR YR 1977 TOTAL 4383280 MEAN 12010 MAX 107000 MIN 2200

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1944 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: June 1968 to current year.
pH: June 1968 to current year.
WATER TEMPERATURES: October 1944 to current year.
DISSOLVED OXYGEN: October 1962 to current year.
SUSPENDED-SEDIMENT DISCHARGE: September 1949 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 400 micromhos Jan. 24, 1959; minimum, 50 micromhos Mar. 19, 1945.
pH: Maximum, 10.2 July 5, 6, 1971, June 14, 15, 1974; minimum, 5.3 June 22, 1972.
WATER TEMPERATURES: Maximum 34.0°C June 18, 1957; minimum 0.0°C on many days during winter months.
DISSOLVED OXYGEN: Maximum, 17.3 mg/L July 9, 1974; minimum, 4.0 mg/L Nov. 9, 1972.
SEDIMENT CONCENTRATIONS: Maximum daily, 1,720 mg/L Nov. 26, 1950; minimum daily, less than 0.5 mg/L Oct. 21, 1952 and Jan. 18, 1970.
SEDIMENT LOADS: Maximum daily, 1,087,000 tons (986,126 tonnes) Aug. 20, 1955; minimum daily, less than 0.5 ton (0.45 tonne) Oct. 21, 1952.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	FECAL COLIFORM .7UM-MF (COL./100 ML)	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT 22...	0930	25900	135	7.6	9.5	7	11.6	2.6	730	--	47	22
NOV 22...	1000	7420	165	7.6	1.0	1	14.6	1.0	50	86	59	21
DEC 28...	1100	E3950	191	8.5	.5	1	14.4	1.0	8200	--	63	23
MAR 09...	1210	26600	107	7.6	4.5	6	12.6	1.6	450	170	32	13
14...	1415	75000	120	7.3	--	80	--	--	--	--	39	18
APR 27...	1045	20500	105	7.5	12.0	8	10.2	6.4	--	3000	41	21
MAY 09...	1120	14900	136	7.8	14.0	3	10.0	2.4	47	160	47	21
JUN 08...	1030	4090	236	8.6	19.5	2	10.8	4.5	63	1600	87	32
JUL 22...	1135	4090	181	8.9	29.5	1	9.6	5.7	23	2600	74	30
AUG 10...	0940	4240	226	8.1	27.0	1	7.8	2.0	877	5400	83	38
SEP 08...	1100	2950	234	8.1	24.0	10	8.2	3.5	66	1000	87	41

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT 22...	13	3.6	4.7	1.5	31	0	25	1.2	19	7.2	.1
NOV 22...	15	5.2	5.7	1.1	46	0	38	1.0	22	9.8	.1
DEC 28...	15	6.3	7.7	1.3	49	--	40	.2	23	11	.1
MAR 09...	8.4	2.6	4.6	1.3	23	0	19	.9	15	7.8	.1
14...	10	3.4	5.1	1.6	25	0	21	2.0	17	8.0	.1
APR 27...	11	3.2	4.8	1.1	24	0	20	1.2	14	6.4	.0
MAY 09...	11	4.7	5.4	1.3	32	0	26	.8	17	7.4	.0
JUN 08...	22	7.7	10	1.8	67	--	55	.3	27	13	.1
JUL 22...	19	6.4	9.4	1.8	54	--	44	.1	24	13	.1
AUG 10...	21	7.5	10	2.3	55	--	45	.7	27	13	.1
SEP 08...	23	7.1	10	1.9	56	--	46	.7	28	14	.1

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	TOTAL FILT-RABLE RESIDUE (MG/L)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL ORGANIC NITRO-GEN (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
OCT											
22...	4.0	73	81	32	.66	.09	.49	.58	1.2	.09	3.0
NOV											
22...	3.5	93	--	14	.82	.20	.22	.42	1.2	.08	7.8
DEC											
28...	2.9	97	--	2	.98	.34	.26	.60	1.6	.07	3.4
MAR											
09...	4.2	76	--	24	.77	.12	.31	.43	1.2	.06	2.5
14...	4.3	66	--	289	.81	.15	1.5	1.7	2.5	.19	8.0
APR											
27...	3.6	67	70	27	.56	.09	.50	.59	1.2	.06	4.0
MAY											
09...	1.3	65	--	5	.59	.02	.41	.43	1.0	.05	4.9
JUN											
08...	3.8	156	--	--	1.4	--	--	1.1	2.5	.11	--
JUL											
22...	3.0	1[illegible]9	--	13	.95	.01	.86	.87	1.8	.24	7.1
AUG											
10...	3.4	135	--	8	1.3	.01	.64	.65	2.0	.14	3.8
SEP											
08...	2.6	123	--	13	1.3	.02	.48	.50	1.8	.16	4.9

DATE	TIME	TOTAL ARSENIC (AS) (UG/L)	SUS-PENDED ARSENIC (AS) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	SUS-PENDED CAD-MIUM (CD) (UG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	SUS-PENDED CHRO-MIUM (CR) (UG/L)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)
NOV											
22...	1000	1	0	1	0	0	0	20	20	0	0
MAR											
09...	1210	0	0	0	4	1	3	40	31	9	0
14...	1415	5	4	1	5	4	1	20	20	0	8
MAY											
09...	1120	1	0	1	0	0	0	<10	<3	7	0

DATE	SUS-PENDED COBALT (CO) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	SUS-PENDED COPPER (CU) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	SUS-PENDED LEAD (PB) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)
NOV											
22...	0	0	8	6	2	130	70	9	3	6	40
MAR											
09...	0	0	4	1	3	710	50	7	2	5	80
14...	8	0	22	18	4	9500	40	40	36	4	460
MAY											
09...	0	0	5	2	3	230	70	7	4	3	40

DATE	SUS-PENDED MAN-GANESE (MN) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	SUS-PENDED MERCURY (HG) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	SUS-PENDED SELE-NIUM (SE) (UG/L)	DIS-SOLVED SELE-NIUM (SE) (UG/L)	TOTAL ZINC (ZN) (UG/L)	SUS-PENDED ZINC (ZN) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
NOV											
22...	0	40	.2	.2	.0	0	0	0	60	10	50
MAR											
09...	40	40	.0	.0	.0	0	0	0	60	30	30
14...	430	30	.4	.4	.0	0	0	0	220	210	10
MAY											
09...	20	20	.0	.0	.0	0	0	0	30	10	20

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	TOTAL ALDRIN (UG/L)	ALDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL ATRAZINE (UG/L)	ATRAZINE IN BOTTOM MATERIAL (UG/KG DRY SOLIDS)	TOTAL CHLORDANE (UG/L)	CHLORDANE IN BOTTOM MATERIAL (UG/KG)	TOTAL DDD (UG/L)	P,P' DDD IN BOTTOM MATERIAL (UG/KG)	TOTAL DDE (UG/L)
NOV 22...	1000	ND	ND	ND	ND	ND	2	ND	1.2	ND
MAR 09...	1210	--	--	ND	--	--	--	--	--	--
MAY 09...	1120	ND	ND	ND	ND	ND	40	ND	6.1	ND
AUG 10...	0940	ND	--	ND	--	ND	--	ND	--	ND

DATE	P,P' DDE IN BOTTOM MATERIAL (UG/KG)	TOTAL DDT (UG/L)	P,P' DDT IN BOTTOM MATERIAL (UG/KG)	O,P' DDT IN BOTTOM MATERIAL (UG/KG)	TOTAL DIAZINON (UG/L)	DIAZINON IN BOTTOM MATERIAL (UG/KG)	TOTAL DIELDRIN (UG/L)	DIELDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL ENDRIN (UG/L)	ENDRIN IN BOTTOM MATERIAL (UG/KG)
NOV 22...	.8	ND	2.1	1.2	ND	ND	ND	.1	ND	ND
MAR 09...	--	--	--	--	ND	--	--	--	--	--
MAY 09...	6.2	ND	40	4.5	ND	ND	ND	.5	ND	ND
AUG 10...	--	ND	--	--	ND	--	ND	--	ND	--

DATE	TOTAL ETHION (UG/L)	ETHION IN BOTTOM MATERIAL (UG/KG)	TOTAL HEPTACHLOR (UG/L)	HEPTACHLOR IN BOTTOM MATERIAL (UG/KG)	TOTAL HEPTACHLOR EPOXIDE (UG/L)	HEPTACHLOR EPOXIDE IN BOTTOM MATERIAL (UG/KG)	TOTAL LINDANE (UG/L)	LINDANE IN BOTTOM MATERIAL (UG/KG)	TOTAL MALATHION (UG/L)	MALATHION IN BOTTOM MATERIAL (UG/KG)
NOV 22...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAR 09...	ND	--	--	--	--	--	--	--	ND	--
MAY 09...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 10...	ND	--	ND	--	ND	--	ND	--	ND	--

DATE	TOTAL METHOXYCHLOR (UG/L)	METHOXYCHLOR IN BOTTOM MATERIAL (UG/KG)	TOTAL METHYL PARATHION (UG/L)	METHYL PARATHION IN BOTTOM MATERIAL (UG/KG)	TOTAL METHYL TRITHION (UG/L)	METHYL TRITHION IN BOTTOM MATERIAL (UG/KG)	TOTAL PARATHION (UG/L)	PARATHION IN BOTTOM MATERIAL (UG/KG)	SIMAZINE TOTAL COULSON COND. (UG/L)	SIMAZINE IN BOTTOM MATERIAL (UG/KG DRY SOLIDS)
NOV 22...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAR 09...	--	--	ND	--	ND	--	ND	--	ND	--
MAY 09...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 10...	ND	--	ND	--	ND	--	ND	--	ND	--

DATE	TOTAL TOXAPHENE (UG/L)	TOXAPHENE IN BOTTOM MATERIAL (UG/KG)	TOTAL TRITHION (UG/L)	TRITHION IN BOTTOM MATERIAL (UG/KG)	TOTAL 2,4-D (UG/L)	2,4-D IN BOTTOM MATERIAL (UG/KG)	TOTAL 2,4,5-T (UG/L)	2,4,5-T IN BOTTOM MATERIAL (UG/KG)	TOTAL SILVEX (UG/L)	SILVEX IN BOTTOM MATERIAL (UG/KG)
NOV 22...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MAR 09...	--	--	ND	--	ND	--	ND	--	ND	--
MAY 09...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 10...	ND	--	ND	--	ND	--	ND	--	ND	--

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	DIS-SOLVED GROSS ALPHA AS U-NAT. (UG/L)	SUS-PENDED GROSS ALPHA AS U-NAT. (UG/L)	DIS-SOLVED GROSS BETA AS CS-137 (PC/L)	SUS-PENDED GROSS BETA AS CS-137 (PC/L)	DIS-SOLVED GROSS BETA AS SR90 /Y90 (PC/L)	SUS-PENDED GROSS BETA AS SR90 /Y90 (PC/L)	DIS-SOLVED RA-226 (RADON METHOD) (PC/L)
OCT								
22...	0930	<1.5	2.2	3.3	3.2	2.6	3.0	.07
APR								
27...	1045	<1.0	.8	3.3	1.5	2.6	1.3	.07

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM
MAR							
14...	1415	75000	309	62600	25	39	52

DATE	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM	SUS. SED. SIEVE DIAM. % FINER THAN .500 MM	SUS. SED. SIEVE DIAM. % FINER THAN 1.00 MM	SUS. SED. SIEVE DIAM. % FINER THAN 2.00 MM
MAR							
14...	65	77	84	92	98	99	100

BENTHIC INVERTEBRATE ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977

DATE TIME	JUL 22,77 1100	JUL 22,77 1105	JUL 22,77 1110	SEP 16,77 1000	SEP 16,77 1001
TOTAL COUNT	434	1167	744	237	62
DIVERSITY: PHYLUM	0.0	0.0	0.0	0.3	0.0
.CLASS	0.0	0.0	0.0	0.7	0.0
..ORDER	0.0	0.0	0.0	0.0	1.9
...FAMILY	0.0	0.0	0.0	0.0	0.0
....GENUS	0.0	0.0	0.0	0.0	0.0
....GENUS-INSECTA	0.0	0.0	0.0	0.0	0.0
ORGANISM	COUNT	COUNT	COUNT	COUNT	COUNT
ANNELIDA					
.HIRUDINEA	--	--	--	9	--
.OLIGOCHAETA	--	--	--	1	--
ARTHROPODA (ARTHROPODS)					
.ARACHNOIDEA					
..HYDRACARINA	--	4	2	--	--
.CRUSTACEA					
..AMPHIPODA	28	7	22	17	--
..CYCLOPOIDA					
...CYCLOPIDAE	--	--	0	2	--
..PODOCOPA	2	--	13	3	--
.INSECTA					
..COLEOPTERA					
...ELMIDAE	4	11	7	1	1
..DIPTERA					
...CHIRONOMIDAE	394	978	670	65	20
...EMPIDIDAE	--	1	--	--	--
..EPHEMEROPTERA	4	4	11	29	18
..TRICHOPTERA	9	160	18	107	20
..ODONATA					
...COENAGRIONIDAE	--	1	--	3	3
NEMATODA (NEMATODES)	1	1	1	--	--

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977

DATE	OCT 22,76	NOV 22,76	DEC 28,76	MAR 9,77	MAY 9,77
TIME	0930	1000	1100	1210	1120
TOTAL CELLS/ML	710	500	1000	1000	6000
DIVERSITY: DIVISION	1.4	1.0	1.0	1.0	1.4
.CLASS	1.4	1.0	1.0	1.0	1.4
..ORDER	1.8	1.6	1.1	1.0	2.4
...FAMILY	3.0	1.9	2.3	2.4	2.9
....GENUS	3.2	2.1	2.4	2.6	3.2

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...CHARACIACEAE										
....SCHROEDERIA	--	-	--	-	--	-	--	-	--	-
...COELASTRACEAE										
....COELASTRUM	--	-	--	-	--	-	--	-	--	-
...HYDRODICTYACEAE										
....PEDIASTRUM	--	-	--	-	--	-	--	-	--	-
....SORASTRUM	--	-	--	-	--	-	--	-	--	-
...MICRACTINIACEAE										
....GOLENKINIA	--	-	--	-	--	-	--	-	--	-
....MICRACTINIUM	--	-	--	-	--	-	--	-	190	3
...OOCYSTACEAE										
....ANKISTRODESMUS	12	2	--	-	9	1	6	1	*	0
....CHODATELLA	--	-	--	-	--	-	--	-	--	-
....DICTYOSPHAERIUM	--	-	--	-	--	-	--	-	*	0
....KIRCHNERIELLA	--	-	--	-	--	-	--	-	--	-
....OOCYSTIS	--	-	--	-	--	-	--	-	--	-
....SELENASTRUM	--	-	--	-	--	-	--	-	*	0
....TETRAEDRON	--	-	--	-	--	-	--	-	--	-
....TREUBARIA	--	-	--	-	--	-	--	-	--	-
....WESTELLA	--	-	--	-	--	-	--	-	--	-
...SCENEDESMACEAE										
....ACTINASTRUM	--	-	--	-	--	-	--	-	--	-
....CRUCIGENIA	--	-	--	-	--	-	--	-	--	-
....SCENEDESMUS	96	14	--	-	10	2	--	-	330	5
....TETRASTRUM	--	-	--	-	--	-	--	-	--	-
..TETRASPORALES										
...COCCOMYXACEAE										
....ELAKATOTHRIX	--	-	--	-	--	-	--	-	--	-
...PALMELLACEAE										
....GLOEOCYSTIS	--	-	--	-	--	-	--	-	--	-
....SPHAEROCYSTIS	--	-	--	-	--	-	--	-	*	0
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	--	-	--	-	--	-	--	-	82	1
...VOLVOCACEAE										
....PANDORINA	--	-	--	-	--	-	--	-	220	4
..ZYGNEMATALES										
...DESMIDIACEAE										
....COSMARIUM	--	-	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977

DATE TIME	OCT 22,76 0930		NOV 22,76 1000		DEC 28,76 1100		MAR 9,77 1210		MAY 9,77 1120	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	36	5	32	5	12	1	--	-	1100#	19
....MELOSIRA	24	3	67	11	15	1	--	-	190	3
....STEPHANODISCUS	--	-	--	-	--	-	--	-	--	-
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	24	3	--	-	6	1	30	3	*	0
....COCCONEIS	--	-	11	2	*	0	6	1	*	0
....RHOICOSPHENIA	12	2	7	1	*	0	--	-	*	0
...CYMBELLACEAE										
....AMPHORA	12	2	--	-	--	-	--	-	--	-
....CYMBELLA	--	-	--	-	6	1	48	5	*	0
...DIATOMACEAE										
....DIATOMA	12	2	7	1	*	0	60	6	*	0
...EUNOTIACEAE										
....EUNOTIA	12	2	--	-	*	0	--	-	--	-
...FRAGILARIACEAE										
....ASTERIONELLA	--	-	--	-	9	1	6	1	300	5
....FRAGILARIA	--	-	--	-	60	6	66	7	--	-
....HANNAEA	--	-	--	-	--	-	6	1	*	0
....SYNEDRA	48	7	--	-	18	2	100	10	790	13
...GOMPHONEMATACEAE										
....GOMPHONEMA	--	-	--	-	12	1	18	2	*	0
...MERIDIONACEAE										
....MERIDION	--	-	--	-	*	0	24	2	--	-
...NAVICULACEAE										
....FRUSTULIA	12	2	--	-	--	-	--	-	--	-
....NAVICULA	60	8	18	3	30	3	66	7	190	3
....NEIDIUM	--	-	--	-	--	-	--	-	--	-
....PINNULARIA	--	-	11	2	--	-	--	-	--	-
...NITZSCHIACEAE										
....NITZSCHIA	72	10	46	8	69	7	30	3	220	4
...SURIRELLACEAE										
....SURIRELLA	36	5	--	-	9	1	18	2	*	0
.CHRYSOPHYCEAE										
..CHRYSOMONADALES										
...OCHROMONADACEAE										
....DINOBRYON	--	-	--	-	*	0	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROCCOCCALES										
...CHROCCOCCAEAE										
....ANACYSTIS	--	-	32	5	--	-	--	-	550	9
..HORMOGONALES										
...NOSTOCACEAE										
....ANABAENA	240#	34	--	-	--	-	--	-	--	-
....APHANIZOMENON	--	-	--	-	370#	35	520#	51	--	-
...OSCILLATORIACEAE										
....OSCILLATORIA	--	-	350#	60	400#	38	--	-	1600#	27
EUGLENOPHYTA (EUGLENOIDS)										
.CRYPTOPHYCEAE										
..CRYPTOMONIDALES										
...CRYPTOMONODACEAE										
....CRYPTOMONAS	--	-	--	-	--	-	--	-	--	-
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....TRACHELOMONAS	--	-	4	1	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977

DATE	JUN 8,77	JUL 22,77	AUG 10,77	SEP 8,77
TIME	1030	1135	0940	1100
TOTAL CELLS/ML	57000	67000	16000	14000
DIVERSITY: DIVISION	0.9	1.1	0.8	1.4
.CLASS	0.9	1.1	0.8	1.4
..ORDER	1.2	1.3	1.7	1.6
...FAMILY	2.5	1.9	2.7	1.9
....GENUS	3.9	2.6	2.8	2.2

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...CHARACIACEAE								
....SCHROEDERIA	--	-	--	-	*	0	--	-
...COELASTRACEAE								
....COELASTRUM	2200	4	1600	2	950	6	--	-
...HYDRODICTYACEAE								
....PEDIASTRUM	2500	4	*	0	1300	8	--	-
....SORASTRUM	--	-	*	0	--	-	--	-
...MICRACTINIACEAE								
....GOLENKINIA	310	1	--	-	--	-	--	-
....MICRACTINIUM	1300	2	*	0	--	-	--	-
...OOCYSTACEAE								
....ANKISTRODESMUS	4100	7	1000	2	240	1	120	1
....CHODATELLA	520	1	--	-	--	-	--	-
....DICTYOSPHAERIUM	6300	11	1000	2	1000	6	--	-
....KIRCHNERIELLA	520	1	10000#	15	240	1	1000	7
....OOCYSTIS	2300	4	*	0	--	-	--	-
....SELENASTRUM	1100	2	1000	2	--	-	--	-
....TETRAEDRON	830	1	*	0	--	-	--	-
....TREUBARIA	720	1	--	-	--	-	--	-
....WESTELLA	--	-	2600	4	--	-	--	-
...SCENEDESMACEAE								
....ACTINASTRUM	3500	6	800	1	--	-	--	-
....CRUCIGENIA	5800	10	1600	2	--	-	620	5
....SCENEDESMUS	8400	15	17000#	25	6100#	37	4900#	36
....TETRASTRUM	2500	4	800	1	--	-	--	-
..TETRASPORALES								
...COCCOMYXACEAE								
....ELAKATOTHRIX	--	-	400	1	--	-	--	-
...PALMELLACEAE								
....GLOEOCYSTIS	--	-	600	1	--	-	250	2
....SPHAEROCYSTIS	--	-	--	-	3900#	24	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	2800	5	*	0	--	-	--	-
...VOLVOCACEAE								
....PANDORINA	--	-	--	-	--	-	--	-
..ZYGNEMATALES								
...DESMIDIACEAE								
....COSMARIUM	--	-	--	-	220	1	--	-

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1976 TO SEPTEMBER 1977

DATE TIME	JUN 8,77 1030		JUL 22,77 1135		AUG 10,77 0940		SEP 8,77 1100	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	1700	3	800	1	*	0	710	5
....MELOSIRA	*	0	--	-	*	0	--	-
....STEPHANODISCUS	--	-	--	-	100	1	--	-
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	--	-	--	-	--	-	--	-
....COCCONEIS	--	-	--	-	*	0	--	-
....RHOICOSPHENIA	--	-	--	-	--	-	--	-
...CYMBELLACEAE								
....AMPHORA	--	-	--	-	--	-	--	-
....CYMBELLA	410	1	*	0	--	-	*	0
...DIATOMACEAE								
....DIATOMA	*	0	--	-	--	-	--	-
...EUNOTIACEAE								
....EUNOTIA	--	-	--	-	--	-	--	-
...FRAGILARIACEAE								
....ASTERIONELLA	--	-	--	-	--	-	--	-
....FRAGILARIA	--	-	--	-	--	-	--	-
....HANNAEA	--	-	--	-	--	-	--	-
....SYNEDRA	*	0	--	-	280	2	--	-
...GOMPHONEMATACEAE								
....GOMPHONEMA	--	-	--	-	--	-	--	-
...MERIDIONACEAE								
....MERIDION	--	-	--	-	--	-	--	-
...NAVICULACEAE								
....FRUSTULIA	--	-	--	-	--	-	--	-
....NAVICULA	--	-	--	-	220	1	120	1
....NEIDIUM	*	0	--	-	--	-	--	-
....PINNULARIA	--	-	--	-	--	-	--	-
...NITZSCHIACEAE								
....NITZSCHIA	620	1	600	1	*	0	280	2
...SURIRELLACEAE								
....SURIRELLA	--	-	*	0	--	-	--	-
.CHRYSOPHYCEAE								
..CHRYSOMONADALES								
...OCHROMONADACEAE								
....DINOBRYON	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROCCOCCALES								
...CHROCCOCCAEAE								
....ANACYSTIS	8000	14	27000#	40	1000	6	5500#	41
..HORMOGONALES								
...NOSTOCACEAE								
....ANABAENA	--	-	--	-	670	4	--	-
....APHANIZOMENON	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE								
....OSCILLATORIA	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.CRYPTOPHYCEAE								
..CRYPTOMONIDALES								
...CRYPTOMONODACEAE								
....CRYPTOMONAS	--	-	--	-	--	-	*	0
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....TRACHELOMONAS	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
 * - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

PERIPHYTON

Date	Time	Length of exposure (days)	Biomass (mg/m^2) Dry weight	Biomass (mg/m^2) Ash weight	Chlorophyll a* (mg/m^2)	Chlorophyll b* (mg/m^2)	Biomass chlorophyll ratio	Sampling method
Nov 22		31	5038	4231	3.03	2.26	266	Polyethylene strip
Jul 22	1100	41	--	--	10.7	6.56	--	
	1105	41	21100	11200	10.8	12.3	917	
	1110	41	21700	11500	6.04	7.57	1690	
Sep 16	1000	41	17300	13900	3.62	4.35	939	
	1001	41	11700	9840	1.29	0.346	1440	
	1002	41	8660	7320	1.08	0.079	1240	
	1003	41	4490	3300	0.329	0.057	3620	

* Chlorophyll determinations in November were performed using the chromatographic-spectrophotometric technique, in June and July determinations were performed using the chromatographic-fluorometric technique.

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	171	163	165	138	126	129	---	---	---	---	---	---
2	169	153	162	126	115	119	---	---	---	---	---	---
3	184	161	176	117	113	115	---	---	---	---	---	---
4	184	163	173	119	116	117	---	---	---	---	---	---
5	183	161	170	---	---	---	---	---	---	---	---	---
6	160	155	---	---	---	---	---	---	---	195	190	193
7	---	---	---	---	---	---	---	---	---	189	185	187
8	---	---	---	---	---	---	---	---	---	192	187	189
9	---	---	---	---	---	---	---	---	---	204	193	198
10	---	---	---	---	---	---	---	---	---	207	204	205
11	---	---	---	---	---	---	---	---	---	208	202	205
12	---	---	---	---	---	---	---	---	---	211	209	210
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	146	138	---	161	155	---	---	---	---
17	---	---	---	160	146	153	163	157	160	---	---	---
18	---	---	---	161	157	---	163	151	158	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	128	124	---	---	---	---	---	---	---	---	---	---
21	131	123	---	---	---	---	175	170	---	226	215	219
22	---	---	---	---	---	---	179	166	174	217	214	215
23	---	---	---	---	---	---	---	---	---	215	211	213
24	---	---	---	---	---	---	---	---	---	215	212	214
25	---	---	---	---	---	---	---	---	---	237	213	219
26	---	---	---	---	---	---	---	---	---	215	209	212
27	---	---	---	---	---	---	---	---	---	218	208	212
28	---	---	---	---	---	---	---	---	---	227	211	217
29	115	110	113	---	---	---	---	---	---	224	221	223
30	117	113	115	---	---	---	---	---	---	233	225	220
31	124	126	118	---	---	---	---	---	---	236	232	234
MONTH	184	110	149	161	113	127	179	151	164	237	185	210

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	235	227	231	---	---	---	---	---	---	120	109	114
2	252	234	239	---	---	---	---	---	---	134	119	125
3	251	242	247	---	---	---	---	---	---	140	131	135
4	258	247	251	---	---	---	---	---	---	134	126	131
5	258	243	249	---	---	---	---	---	---	144	125	131
6	251	247	250	---	---	---	---	---	---	148	137	142
7	268	254	262	---	---	---	---	---	---	142	130	---
8	274	262	268	---	---	---	---	---	---	---	---	---
9	263	233	249	---	---	---	---	---	---	---	---	---
10	249	223	231	---	---	---	---	---	---	---	---	---
11	240	208	222	---	---	---	130	127	---	---	---	---
12	234	209	220	---	---	---	133	127	130	---	---	---
13	234	222	227	---	---	---	134	130	132	---	---	---
14	240	225	231	---	---	---	137	134	---	---	---	---
15	244	225	230	---	---	---	---	---	---	---	---	---
16	247	226	240	---	---	---	---	---	---	---	---	---
17	247	242	245	---	---	---	---	---	---	---	---	---
18	247	226	240	---	---	---	---	---	---	---	---	---
19	230	211	219	---	---	---	---	---	---	---	---	---
20	226	211	218	---	---	---	---	---	---	---	---	---
21	232	223	226	---	---	---	---	---	---	---	---	---
22	235	221	229	---	---	---	---	---	---	---	---	---
23	234	218	228	---	---	---	---	---	---	---	---	---
24	252	191	225	---	---	---	---	---	---	---	---	---
25	235	174	195	---	---	---	---	---	---	---	---	---
26	206	195	---	---	---	---	---	---	---	---	---	---
27	174	155	163	---	---	---	---	---	---	---	---	---
28	---	---	---	139	132	---	105	97	---	---	---	---
29	---	---	---	138	132	135	108	96	100	---	---	---
30	---	---	---	132	122	127	116	108	111	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	274	155	232	139	122	131	137	96	118	148	109	130

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	201	178	191	174	170	---	224	213	220
2	---	---	---	215	186	191	---	---	---	227	188	203
3	---	---	---	190	167	184	---	---	---	189	181	185
4	---	---	---	188	172	---	---	---	---	185	179	181
5	---	---	---	---	---	---	---	---	---	181	174	178
6	---	---	---	---	---	---	---	---	---	189	175	180
7	---	---	---	---	---	---	---	---	---	190	181	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	185	159	---	---	---	---
16	---	---	---	---	---	---	199	166	181	---	---	---
17	---	---	---	---	---	---	203	185	195	---	---	---
18	---	---	---	182	179	---	214	198	203	---	---	---
19	---	---	---	196	183	190	214	194	203	---	---	---
20	---	---	---	202	179	194	211	204	208	---	---	---
21	---	---	---	180	171	176	218	207	212	---	---	---
22	---	---	---	179	165	174	220	199	205	---	---	---
23	---	---	---	170	161	167	209	198	203	---	---	---
24	---	---	---	171	164	167	216	197	207	---	---	---
25	---	---	---	172	160	166	222	205	213	---	---	---
26	---	---	---	214	174	---	206	199	202	---	---	---
27	---	---	---	---	---	---	202	192	196	102	95	---
28	---	---	---	---	---	---	---	---	---	95	77	81
29	185	178	---	175	161	---	194	191	---	110	77	---
30	205	186	193	181	167	172	228	215	221	114	111	---
31	---	---	---	193	172	182	226	212	223	---	---	---
MONTH	205	178	193	215	160	180	228	159	205	227	77	175

PH (UNITS), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.7	7.5	7.6	7.7	7.6	7.7	---	---	---	---	---	---
2	7.7	7.4	7.5	7.7	7.6	7.7	---	---	---	---	---	---
3	7.8	7.5	7.6	7.7	7.6	7.6	---	---	---	---	---	---
4	7.5	7.2	7.4	7.8	7.6	7.6	---	---	---	---	---	---
5	7.3	7.1	7.2	---	---	---	---	---	---	---	---	---
6	7.3	7.1	---	---	---	---	---	---	---	8.5	8.3	8.4
7	---	---	---	---	---	---	---	---	---	8.4	8.0	8.2
8	---	---	---	---	---	---	---	---	---	8.6	8.2	8.4
9	---	---	---	---	---	---	---	---	---	8.5	8.2	8.4
10	---	---	---	---	---	---	---	---	---	8.4	8.0	8.1
11	---	---	---	---	---	---	---	---	---	8.5	8.2	8.4
12	---	---	---	---	---	---	---	---	---	8.6	8.4	8.5
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	8.0	7.5	---	---	---	---
17	---	---	---	---	---	---	7.9	7.5	7.6	---	---	---
18	---	---	---	---	---	---	8.0	7.6	7.8	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	7.9	7.7	---	---	---	---	---	---	---	---	---	---
21	7.8	7.7	---	---	---	---	---	---	---	8.4	8.2	8.3
22	---	---	---	---	---	---	---	---	---	8.3	8.1	8.2
23	---	---	---	---	---	---	---	---	---	8.3	8.1	8.2
24	---	---	---	---	---	---	---	---	---	8.1	7.9	8.0
25	---	---	---	---	---	---	---	---	---	7.9	7.8	7.9
26	---	---	---	---	---	---	---	---	---	8.1	7.8	7.9
27	---	---	---	---	---	---	---	---	---	8.3	7.9	8.1
28	---	---	---	---	---	---	---	---	---	8.4	8.0	8.1
29	7.7	7.5	7.6	---	---	---	---	---	---	8.8	8.2	8.4
30	7.7	7.6	7.7	---	---	---	---	---	---	8.6	8.3	8.4
31	7.9	7.6	7.7	---	---	---	---	---	---	8.4	8.2	8.3
MONTH	7.9	7.1	7.5	7.8	7.6	7.7	---	---	---	8.8	7.8	8.2

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

PH (UNITS), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	8.5	8.1	8.3	---	---	---	---	---	---	7.6	7.2	7.4
2	8.5	8.0	8.2	---	---	---	---	---	---	7.8	7.3	7.5
3	8.3	8.1	8.2	---	---	---	---	---	---	8.1	7.3	7.5
4	8.2	7.9	8.0	---	---	---	---	---	---	8.1	7.5	7.8
5	8.3	7.9	8.0	---	---	---	---	---	---	8.0	7.5	7.7
6	---	---	---	---	---	---	---	---	---	7.8	7.7	7.7
7	---	---	---	---	---	---	---	---	---	7.9	7.6	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	8.1	7.5	---	---	---	---
12	---	---	---	---	---	---	8.1	6.9	7.7	---	---	---
13	---	---	---	---	---	---	8.1	7.1	7.7	---	---	---
14	---	---	---	---	---	---	8.0	7.9	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	7.8	7.3	---	7.1	6.8	---	---	---	---
29	---	---	---	9.0	6.6	7.7	7.3	7.1	7.2	---	---	---
30	---	---	---	7.9	6.6	7.4	7.4	7.2	7.3	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	8.5	7.9	8.1	---	---	---	8.1	6.8	7.5	8.1	7.2	7.6

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	8.7	7.0	7.6	8.2	7.0	---	8.2	7.2	7.6
2	---	---	---	8.7	6.9	7.8	---	---	---	8.3	7.2	7.7
3	---	---	---	8.8	7.4	8.1	---	---	---	8.4	7.2	7.7
4	---	---	---	8.7	8.0	---	---	---	---	8.7	7.4	8.0
5	---	---	---	---	---	---	---	---	---	8.4	7.4	7.9
6	---	---	---	---	---	---	---	---	---	8.5	7.4	7.9
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	8.4	7.8	---	---	---	---
16	---	---	---	---	---	---	8.1	7.5	7.7	---	---	---
17	---	---	---	---	---	---	8.3	7.4	7.8	---	---	---
18	---	---	---	8.6	8.0	---	9.0	7.6	8.2	---	---	---
19	---	---	---	8.5	7.4	8.0	8.5	8.0	8.1	---	---	---
20	---	---	---	8.3	6.6	7.1	8.7	7.6	8.0	---	---	---
21	---	---	---	7.7	6.5	7.3	8.8	7.8	8.3	---	---	---
22	---	---	---	7.9	6.7	7.3	8.6	7.6	7.8	---	---	---
23	---	---	---	7.9	7.1	7.5	8.6	8.0	8.2	---	---	---
24	---	---	---	7.9	6.9	7.5	8.4	7.5	7.8	---	---	---
25	---	---	---	7.7	6.5	7.1	8.7	7.7	8.1	---	---	---
26	---	---	---	7.4	6.5	---	8.7	7.8	8.2	---	---	---
27	---	---	---	---	---	---	8.9	7.9	8.4	8.1	7.5	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	9.2	8.7	---	8.1	7.4	---	8.9	8.0	---	---	---	---
30	8.9	7.4	8.3	8.1	6.8	7.5	8.6	7.5	8.0	7.2	7.0	---
31	---	---	---	8.2	6.9	7.6	8.4	7.5	7.9	---	---	---
MONTH	---	---	---	8.8	6.5	7.5	9.0	7.0	8.0	8.7	7.0	7.8

DELAWARE RIVER BASIN

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	0.5	0.0	0.5	---	---	---	---	---	---	12.0	10.5	11.5
2	0.5	0.5	0.5	---	---	---	---	---	---	13.0	11.5	12.0
3	0.5	0.0	0.5	---	---	---	---	---	---	13.5	13.0	13.5
4	0.0	0.0	0.0	---	---	---	---	---	---	13.0	12.5	13.0
5	0.0	0.0	0.0	---	---	---	---	---	---	14.0	13.0	13.5
6	0.0	0.0	0.0	---	---	---	---	---	---	14.5	13.0	14.0
7	0.0	0.0	0.0	---	---	---	---	---	---	14.5	14.0	---
8	0.0	0.0	0.0	---	---	---	---	---	---	---	---	---
9	0.0	0.0	0.0	---	---	---	---	---	---	---	---	---
10	0.5	0.0	0.0	---	---	---	---	---	---	---	---	---
11	0.5	0.0	0.0	---	---	---	9.0	9.0	---	---	---	---
12	0.5	0.0	0.0	---	---	---	10.5	8.5	9.5	---	---	---
13	0.5	0.0	0.0	---	---	---	12.0	10.0	11.0	---	---	---
14	0.5	0.0	0.0	---	---	---	11.5	11.5	---	---	---	---
15	0.5	0.0	0.0	---	---	---	---	---	---	---	---	---
16	1.0	0.0	0.0	---	---	---	---	---	---	---	---	---
17	1.0	0.0	0.5	---	---	---	---	---	---	---	---	---
18	1.5	0.0	0.5	---	---	---	---	---	---	---	---	---
19	2.0	0.5	1.0	---	---	---	---	---	---	---	---	---
20	1.5	0.5	1.5	---	---	---	---	---	---	---	---	---
21	2.0	0.0	1.0	---	---	---	---	---	---	---	---	---
22	2.5	0.0	1.5	---	---	---	---	---	---	---	---	---
23	4.0	0.5	2.5	---	---	---	---	---	---	---	---	---
24	4.0	2.5	3.0	---	---	---	---	---	---	---	---	---
25	7.0	3.0	5.5	---	---	---	---	---	---	---	---	---
26	6.5	5.0	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	5.0	4.5	---	12.0	12.0	---	---	---	---
29	---	---	---	6.5	4.5	6.0	10.0	8.5	9.5	---	---	---
30	---	---	---	8.0	6.0	6.5	11.5	9.5	10.5	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	7.0	0.0	0.5	---	---	---	12.0	8.5	10.0	14.5	10.5	13.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	17.0	16.0	16.5				---	---	---	---	---	---
2	17.0	16.0	16.5				---	---	---	---	---	---
3	16.5	15.5	16.0				---	---	---	---	---	---
4	17.5	15.0	16.0				---	---	---	---	---	---
5	16.0	15.5	16.0				---	---	---	---	---	---
6	17.5	15.5	---				---	---	---	0.5	0.5	0.5
7	---	---	---				---	---	---	0.5	0.5	0.5
8	---	---	---				---	---	---	0.5	0.5	0.5
9	---	---	---				---	---	---	0.5	0.5	0.5
10	---	---	---				---	---	---	0.5	0.5	0.5
11	---	---	---				---	---	---	0.5	0.5	0.5
12	---	---	---				---	---	---	0.5	0.5	0.5
13	---	---	---				---	---	---	---	---	---
14	---	---	---				---	---	---	---	---	---
15	---	---	---				---	---	---	---	---	---
16	---	---	---				2.5	2.0	---	---	---	---
17	---	---	---				2.5	2.0	2.5	---	---	---
18	---	---	---				3.0	2.0	2.5	---	---	---
19	---	---	---				---	---	---	---	---	---
20	12.5	11.0	---				---	---	---	---	---	---
21	13.0	11.5	---				2.0	1.0	---	0.5	0.0	0.5
22	---	---	---				2.5	1.0	1.5	0.5	0.5	0.5
23	---	---	---				---	---	---	0.5	0.5	0.5
24	---	---	---				---	---	---	0.5	0.5	0.5
25	---	---	---				---	---	---	0.5	0.5	0.5
26	---	---	---				---	---	---	0.5	0.5	0.5
27	---	---	---				---	---	---	0.5	0.5	0.5
28	---	---	---				---	---	---	0.5	0.0	0.5
29	---	---	---				---	---	---	0.5	0.0	0.5
30	---	---	---				---	---	---	0.5	0.0	0.5
31	---	---	---				---	---	---	0.5	0.0	0.5
MONTH	17.5	11.0	16.0				3.0	1.0	---	0.5	0.0	0.5

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	26.5	24.5	25.5	29.5	23.5	---	28.5	25.0	26.5
2	---	---	---	27.0	24.0	26.5	---	---	---	30.5	25.5	27.5
3	---	---	---	28.5	24.0	26.0	---	---	---	30.0	26.5	28.0
4	---	---	---	28.0	25.0	---	---	---	---	29.0	25.0	27.0
5	---	---	---	---	---	---	---	---	---	27.0	25.0	26.0
6	---	---	---	---	---	---	---	---	---	28.5	24.5	26.0
7	---	---	---	---	---	---	---	---	---	26.5	24.5	25.5
8	---	---	---	---	---	---	---	---	---	25.0	23.0	24.0
9	---	---	---	---	---	---	---	---	---	25.0	22.0	23.5
10	---	---	---	---	---	---	---	---	---	26.5	23.0	24.5
11	---	---	---	---	---	---	---	---	---	24.5	22.0	23.0
12	---	---	---	---	---	---	---	---	---	24.0	19.5	21.5
13	---	---	---	---	---	---	---	---	---	24.0	20.5	22.0
14	---	---	---	---	---	---	---	---	---	23.0	21.0	21.5
15	---	---	---	---	---	---	30.0	23.0	---	22.5	19.0	20.5
16	---	---	---	---	---	---	24.0	20.5	22.0	20.0	19.5	19.5
17	---	---	---	---	---	---	26.0	24.0	25.0	---	---	---
18	---	---	---	34.5	27.5	---	27.0	20.5	24.5	---	---	---
19	---	---	---	34.0	27.0	30.0	26.5	19.5	22.5	---	---	---
20	---	---	---	34.5	27.5	31.0	27.0	20.0	23.5	---	---	---
21	---	---	---	37.0	28.0	32.0	27.0	18.0	23.0	---	---	---
22	---	---	---	34.5	27.5	30.5	26.0	19.0	23.0	---	---	---
23	---	---	---	31.5	21.0	26.0	26.0	22.5	24.5	---	---	---
24	---	---	---	31.0	21.5	25.5	25.5	23.0	24.0	---	---	---
25	---	---	---	23.0	20.5	22.0	26.0	21.0	23.5	---	---	---
26	---	---	---	26.5	23.0	---	26.5	21.5	24.0	---	---	---
27	---	---	---	---	---	---	26.0	22.5	24.0	17.0	16.0	---
28	---	---	---	---	---	---	---	---	---	17.0	16.0	16.5
29	27.5	25.0	---	34.5	24.5	---	29.5	26.0	---	17.0	16.0	---
30	27.0	24.0	25.5	31.5	22.5	26.5	30.0	25.5	27.5	18.0	17.0	---
31	---	---	---	33.5	24.0	29.0	27.5	26.0	26.5	---	---	---
MONTH	---	---	---	37.0	20.5	27.5	30.0	18.0	24.0	30.5	16.0	23.5

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	9.8	9.0	9.5	12.7	12.0	12.4	---	---	---	---	---	---
2	10.8	9.0	10.0	13.1	12.2	12.6	---	---	---	---	---	---
3	10.0	9.4	9.6	14.4	12.2	13.4	---	---	---	---	---	---
4	10.3	9.0	9.6	14.2	12.9	13.7	---	---	---	---	---	---
5	10.2	9.2	9.8	---	---	---	---	---	---	---	---	---
6	9.8	9.2	---	---	---	---	---	---	---	16.1	15.7	15.9
7	---	---	---	---	---	---	---	---	---	15.9	15.5	15.7
8	---	---	---	---	---	---	---	---	---	16.1	15.4	15.9
9	---	---	---	---	---	---	---	---	---	15.9	15.5	15.8
10	---	---	---	---	---	---	---	---	---	15.6	15.0	15.2
11	---	---	---	---	---	---	---	---	---	15.8	15.0	15.4
12	---	---	---	---	---	---	---	---	---	15.9	15.5	15.7
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	13.1	12.7	---	15.4	13.0	---	---	---	---
17	---	---	---	12.9	12.2	12.6	15.2	12.4	14.4	---	---	---
18	---	---	---	12.1	10.4	---	14.0	12.8	13.4	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	12.6	10.2	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	12.9	12.7	---
22	---	---	---	---	---	---	---	---	---	13.1	12.8	12.9
23	---	---	---	---	---	---	---	---	---	13.3	13.0	13.1
24	---	---	---	---	---	---	---	---	---	13.2	13.0	13.1
25	---	---	---	---	---	---	---	---	---	13.1	12.8	13.0
26	---	---	---	---	---	---	---	---	---	13.2	12.8	13.0
27	---	---	---	---	---	---	---	---	---	13.7	13.0	13.2
28	---	---	---	---	---	---	---	---	---	13.5	13.1	13.3
29	12.6	12.1	12.4	---	---	---	---	---	---	14.6	13.4	14.0
30	12.9	12.4	12.7	---	---	---	---	---	---	14.9	13.9	14.4
31	12.9	11.9	12.4	---	---	---	---	---	---	14.7	14.3	14.5
MONTH	12.9	9.0	10.8	14.4	10.4	12.9	---	---	---	16.1	12.7	14.4

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	15.6	14.1	14.8	---	---	---	---	---	---			
2	15.8	14.6	15.1	---	---	---	---	---	---			
3	14.8	13.9	14.5	---	---	---	---	---	---			
4	14.2	13.3	13.7	---	---	---	---	---	---			
5	13.4	12.9	13.1	---	---	---	---	---	---			
6	14.2	13.0	13.6	---	---	---	---	---	---			
7	15.1	13.6	14.3	---	---	---	---	---	---			
8	16.2	14.3	15.1	---	---	---	---	---	---			
9	16.3	15.0	15.6	---	---	---	---	---	---			
10	16.0	14.7	15.2	---	---	---	---	---	---			
11	16.0	14.5	15.1	---	---	---	12.4	11.7	---			
12	15.6	14.0	14.7	---	---	---	12.1	9.8	10.7			
13	14.8	13.4	14.0	---	---	---	10.7	8.6	9.7			
14	15.2	13.0	13.8	---	---	---	10.6	8.8	---			
15	14.9	12.8	13.6	---	---	---	---	---	---			
16	15.7	12.9	14.2	---	---	---	---	---	---			
17	15.9	13.7	14.8	---	---	---	---	---	---			
18	16.3	13.6	15.0	---	---	---	---	---	---			
19	16.1	13.8	15.1	---	---	---	---	---	---			
20	15.3	13.6	14.4	---	---	---	---	---	---			
21	16.1	13.5	14.9	---	---	---	---	---	---			
22	16.1	14.0	---	---	---	---	---	---	---			
23	---	---	---	---	---	---	---	---	---			
24	---	---	---	---	---	---	---	---	---			
25	---	---	---	---	---	---	---	---	---			
26	---	---	---	---	---	---	---	---	---			
27	---	---	---	---	---	---	---	---	---			
28	---	---	---	11.8	11.1	---	---	---	---			
29	---	---	---	11.4	10.7	11.1	11.2	9.0	---			
30	---	---	---	10.8	10.2	10.5	---	---	---			
31	---	---	---	---	---	---	---	---	---			
MONTH	16.3	12.8	14.5	---	---	---	12.4	8.6	---			

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	12.8	8.2	9.2	8.9	5.8	---	10.4	6.7	7.9
2	---	---	---	13.8	8.1	11.4	---	---	---	10.3	6.6	7.9
3	---	---	---	13.3	7.8	10.6	---	---	---	9.5	5.6	7.1
4	---	---	---	11.8	8.1	---	---	---	---	10.5	5.8	7.4
5	---	---	---	---	---	---	---	---	---	9.8	6.0	7.3
6	---	---	---	---	---	---	---	---	---	10.0	5.7	7.5
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	10.9	7.8	---	---	---	---
16	---	---	---	---	---	---	9.0	6.7	7.9	---	---	---
17	---	---	---	---	---	---	10.1	7.5	8.6	---	---	---
18	---	---	---	14.1	10.1	---	11.9	6.7	8.9	---	---	---
19	---	---	---	12.8	9.1	10.5	10.8	7.1	8.8	---	---	---
20	---	---	---	13.4	8.7	10.8	11.8	7.0	8.6	---	---	---
21	---	---	---	12.0	8.2	9.9	11.6	7.4	8.9	---	---	---
22	---	---	---	12.9	7.8	10.2	9.9	8.0	8.8	---	---	---
23	---	---	---	13.4	8.0	10.6	10.6	8.3	9.1	---	---	---
24	---	---	---	13.3	8.0	10.7	9.8	7.1	8.1	---	---	---
25	---	---	---	12.4	8.6	9.9	11.7	7.3	8.8	---	---	---
26	---	---	---	12.7	8.2	---	11.1	8.7	9.4	---	---	---
27	---	---	---	---	---	---	11.3	8.5	9.3	10.3	7.6	---
28	---	---	---	---	---	---	---	---	---	12.2	9.8	10.8
29	13.7	9.5	---	12.2	7.2	---	---	---	---	11.2	9.9	---
30	13.8	7.3	10.2	11.4	6.0	8.3	---	---	---	9.7	7.4	---
31	---	---	---	12.2	6.0	8.8	9.9	7.0	8.2	---	---	---
MONTH	---	---	---	14.1	6.0	10.1	11.9	5.8	8.7	12.2	5.6	8.0

01464600 DELAWARE RIVER AT BRISTOL, PA-BURLINGTON, NJ BRIDGE

LOCATION.--Lat 40°04'55", long 74°51'58", Bucks County, Hydrologic Unit 02040201, at center of river 1,300 ft (396 m) upstream from bridge on a line from the Pennsylvania bank through channel station -79.2 to Lehigh range light on New Jersey bank.

DRAINAGE AREA.--7,163 mi^2 (18,508 km^2).

PERIOD OF RECORD.--August 1949 to current year.

REMARKS.--Samples collected approximately 5 to 15 ft (2 to 5 m) from bottom. Further information on this station is given in U.S. Geological Survey Water-Supply Paper 1809-0.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE (DEG C)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)
OCT 07...	1300	167	18.0	61	26	16	5.0	9.0	1.8	42	34	24
NOV 04...	1345	117	8.7	59	42	20	2.3	4.5	1.3	21	17	190
DEC 02...	1405	182	5.0	64	27	17	5.3	8.3	1.6	45	37	24
MAR 03...	1400	122	4.7	31	14	9.3	1.8	6.4	1.5	20	16	16
APR 14...	1345	244	10.2	52	34	15	3.5	5.3	1.1	22	18	16
MAY 12...	1345	141	17.0	51	28	13	4.4	6.3	1.3	28	23	20
JUN 02...	1315	202	24.0	71	29	18	6.4	10	1.9	52	43	28
JUL 07...	1415	234	28.0	83	39	22	6.8	13	2.1	49	43	32
AUG 04...	1355	236	28.0	83	34	22	6.9	13	2.2	60	49	32
SEP 08...	1330	252	27.0	79	38	20	7.0	15	2.9	50	41	36

DATE	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)	DIS-SOLVED NITRITE (N) (MG/L)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED ORTHO. PHOS-PHORUS (P) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)
OCT 07...	12	.1	3.7	109	98	1.0	.06	1.1	.09	90	10
NOV 04...	7.3	.1	4.8	90	244	.63	.02	.65	.05	200	90
DEC 02...	12	.1	3.4	106	98	.86	.05	.91	.09	90	80
MAR 03...	13	.1	4.4	83	67	.90	.03	.93	.03	150	80
APR 14...	8.8	.1	3.9	112	69	.86	.06	.92	.03	90	70
MAY 12...	8.8	.1	1.6	83	74	.97	.03	1.0	.04	90	40
JUN 02...	14	.1	.8	126	109	.82	.08	.90	.04	50	20
JUL 07...	16	.1	.2	168	125	1.1	.26	1.4	.04	30	0
AUG 04...	18	.1	.3	168	129	.97	.13	1.1	.04	40	10
SEP 08...	18	.1	.1	152	131	1.3	.27	1.6	.06	30	10

01464743 NESHAMINY CREEK NEAR DOYLESTOWN, PA

LOCATION.--Lat 40°17'12", long 75°09'38", Bucks County, Hydrologic Unit 02040201, at the intersection of Almshouse and Lower State Roads in Castle Valley, 0.8 mi (1.3 km) downstream form Mill Creek, 2.3 mi (3.7 km) southwest of Doylestown.

DRAINAGE AREA.--not available.

PERIOD OF RECORD.--October 1975 to current year.

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, OCTOBER 1976 TO AUGUST 1977

DATE	TIME	CODE FOR AGENCY COLLECTING SAMPLE	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	HARDNESS (CA,MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)
OCT 18...	0930	9813	900	9.0	4	172	0	0	44	15	114	94
NOV 09...	0900	9813	600	3.0	5	180	0	0	40	15	114	60
DEC 08...	1300	9813	400	2.0	25	95	0	0	28	6.0	68	50
JAN 04...	0900	9813	900	1.0	5	195	0	0	49	17	198	78
FEB 17...	0800	9813	500	1.0	4	124	0	0	29	12	80	52
MAR 14...	1430	9813	230	11.0	65	64	0	0	17	5.0	42	26
APR 12...	0900	9813	--	11.0	20	72	0	0	19	6.0	58	30
MAY 18...	1300	9813	500	22.0	2	100	--	0	32	5.0	94	56
JUN 07...	1400	9813	380	17.0	2	162	--	0	44	12	148	66
JUL 28...	1300	9813	475	--	8	110	0	0	28	9.5	92	50
AUG 10...	1420	9813	8	--	5	132	--	0	33	12	102	58

DATE	DISSOLVED CHLORIDE (CL) (MG/L)	TOTAL FLUORIDE (F) (MG/L)	TOTAL FILTRABLE RESIDUE (MG/L)	TOTAL NONFILTRABLE RESIDUE (MG/L)	TOTAL RESIDUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
OCT 18...	10	.2	510	<5	--	.41	.05	.73	3.1	250	.19
NOV 09...	70	.1	210	4	214	4.9	.37	4.3	2.0	220	.16
DEC 08...	43	.5	47	20	--	2.4	.08	2.7	.69	900	.06
JAN 04...	128	.1	500	12	512	3.3	.13	18	3.8	210	.26
FEB 17...	74	.1	282	14	296	2.5	.11	7.6	.89	290	.12
MAR 14...	21	.1	164	94	258	2.3	.05	.30	.34	4700	<.01
APR 12...	22	.1	178	16	194	4.2	.17	1.2	.25	1140	<.01
MAY 18...	78	.1	328	6	334	2.6	.66	1.4	1.4	320	.10
JUN 07...	100	.1	452	6	458	1.9	.46	7.8	2.6	350	<.01
JUL 28...	82	.2	336	28	--	3.0	.57	2.8	2.7	820	.09
AUG 10...	88	.2	422	14	--	3.9	.61	.44	4.0	550	--

01464985 LITTLE NESHAMINY CREEK AT JACKSONVILLE, PA

LOCATION.--Lat 40°14'24", long 75°03'15", Bucks County, Hydrologic Unit 02040201, 45 ft (14 m) upstream of bridge on Walton Road, 0.67 mi (1.0 km) south of Jacksonville, 2.3 mi (3.6 km) upstream from Neshaminy Creek.

DRAINAGE AREA.--not available.

PERIOD OF RECORD.--October 1975 to current year.

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, OCTOBER 1976 TO AUGUST 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA,MG) (MG/L)
OCT 18...	1000	9813	700	--	9.0	3	--	158
NOV 09...	0930	9813	600	--	3.0	4	--	180
DEC 13...	0930	9813	600	--	3.0	8	--	135
JAN 04...	0930	9813	800	--	1.0	5	--	180
FEB 17...	1430	9813	500	--	2.0	7	--	120
MAR 14...	1330	9813	200	--	12.0	130	--	54
APR 12...	0930	9813	330	--	13.0	5	--	90
MAY 18...	1200	9813	350	--	20.0	2	--	118
JUN 07...	1330	9813	210	--	16.0	3	--	115
JUL 27...	1200	9813	500	--	--	4	--	127
AUG 09...	1030	9813	485	7.5	25.0	15	3.5	114

DATE	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)
OCT 18...	0	0	40	14	104	86	83	.2	500
NOV 09...	0	0	36	22	110	60	61	.2	400
DEC 13...	0	0	32	13	94	65	65	.2	402
JAN 04...	0	0	41	19	130	80	87	.2	490
FEB 17...	0	0	29	11	70	48	65	1.1	300
MAR 14...	0	0	17	2.5	32	24	20	.1	198
APR 12...	0	0	25	6.5	58	44	33	.1	86
MAY 18...	--	0	30	10	90	58	52	.1	330
JUN 07...	--	0	--	--	78	48	48	.1	282
JUL 27...	--	0	29	13	86	48	52	.1	358
AUG 09...	0	0	27	11	56	46	31	.2	236

01464985 LITTLE NESHAMINY CREEK AT JACKSONVILLE, PA

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	TOTAL RESI-DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
OCT								
18...	<5	--	7.2	.66	2.4	5.9	180	.46
NOV								
09...	6	406	6.2	.39	1.8	2.8	270	.40
DEC								
1[illegible]...	<5	--	8.0	.35	2.3	3.7	400	.37
JAN								
04...	12	502	9.6	.48	7.7	6.5	170	.30
FEB								
17...	12	312	3.5	.20	4.7	2.2	610	.20
MAR								
14...	146	344	2.1	.07	.27	.55	10800	<.01
APR								
12...	4	90	3.9	.24	.75	.86	340	<.01
MAY								
18...	10	340	3.8	.72	.74	2.4	170	.13
JUN								
07...	6	288	4.7	.48	.99	2.8	260	.09
JUL								
27...	10	--	6.1	.48	.67	4.3	200	<.01
AUG								
09...	26	--	5.4	.12	.17	3.2	1430	--

NESHAMINY CREEK BASIN

01465500 NESHAMINY CREEK NEAR LANGHORNE, PA

LOCATION.--Lat 40°10'26", long 74°57'26", Bucks County, Hydrologic Unit 02040201,on left bank at bridge on State Highway 213, 0.3 mi (0.5 km) downstream from Mill Creek, and 1.7 mi (2.7 km) west of Langhorne.

DRAINAGE AREA.--210 mi² (544 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1934 to current year.

REVISED RECORDS.--WSP 1332: 1949. WSP 1432: 1936-37.

GAGE.--Water-stage recorder. Datum of gage is 40.57 ft (12.366 m) above mean sea level.

REMARKS.--Records fair. Some regulation at low flow by mills above station. Flow regulated by upstream reservoirs on Little Neshaminy Creek, Robin Run, Pine Run, North Branch Neshaminy Creek, and Core Creek (combined flood control capacity, about 9,560 acre-ft (11.8 hm³). Occasional regulation by Springfield Lake, capacity, 650 mil gal (2.460 hm³), completed in 1934; no significant regulation except during period May 1934 to January 1944, when the lake was filling, and in September 1949, July 1954, July through October 1957, September, October 1961. Interceptor sewer installed along left bank in May, June 1966.

AVERAGE DISCHARGE.--43 years, 282 ft³/s (7.986 m³/s), 18.22 in/yr (463 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 49,300 ft³/s (1,400 m³/s) Aug. 19, 1955, gage height, 22.84 ft (6.962 m), from floodmarks, from rating curve extended above 4,700 ft³/s (133 m³/s) on basis of contracted-opening measurement at gage height 15.94 ft (4.859 m), and slope-area measurement of peak flow; minimum, 1.9 ft³/s (0.054 m³/s) Sept. 8, 1957; minimum gage height, 0.35 ft (0.107 m) Sept. 1, 2, 1963.

EXTREMES OUTSIDE OF PERIOD OF RECORD.--Flood of Aug. 23, 1933, reached a stage of 17.3 ft (5.27 m), from floodmark, discharge, 30,000 ft³/s (850 m³/s), from rating curve extended as explained above.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,600 ft³/s (102 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 25	0200	6,480	184	8.56	2.609	Apr. 5	1030	*7,210	204	*9.06	2.761

Minimum daily discharge, 25 ft³/s (0.71 m³/s) July 5, 17, 19, 24, 29.

NOTE: No gage-height record May 31 to July 6 and July 17 to August 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	102	201	48	39	26	275	180	176	100	50	300	48
2	107	99	40	38	26	175	293	158	300	40	400	63
3	58	73	35	42	28	145	859	227	70	35	200	45
4	135	63	35	41	29	232	408	201	60	30	50	35
5	69	60	30	40	30	1130	4280	252	50	25	45	31
6	45	54	50	40	29	469	1340	299	150	28	60	69
7	38	51	180	48	27	326	663	501	100	42	50	71
8	33	49	314	40	29	194	553	262	60	49	45	41
9	124	45	117	35	32	163	455	204	150	45	40	45
10	182	45	102	174	37	145	394	207	250	35	35	35
11	82	45	79	338	50	129	357	170	100	32	50	30
12	54	44	62	70	539	197	329	149	60	176	45	28
13	45	44	56	60	963	476	295	140	50	82	100	35
14	39	41	62	70	943	1820	266	127	60	69	80	32
15	34	41	53	60	470	630	231	114	100	42	60	30
16	33	41	51	52	250	439	214	104	70	32	50	40
17	31	39	49	46	150	355	194	99	60	25	70	45
18	32	41	46	41	130	335	182	95	50	30	150	40
19	29	39	45	38	113	400	170	97	40	25	73	50
20	65	38	50	36	97	223	160	97	50	27	48	150
21	262	34	60	34	88	251	150	95	80	35	37	60
22	132	33	82	32	86	900	140	86	50	30	231	50
23	71	32	77	31	83	2000	130	79	45	27	132	60
24	53	31	69	33	384	700	150	75	40	25	82	100
25	51	32	62	35	3390	500	373	71	35	50	65	500
26	75	32	48	36	619	400	321	65	32	70	53	250
27	114	34	57	35	435	350	597	63	30	35	45	100
28	73	34	47	31	457	300	302	60	500	30	39	90
29	54	42	44	28	---	250	317	56	400	25	35	80
30	48	45	42	27	---	220	238	49	100	27	33	60
31	117	---	40	26	---	200	---	45	---	30	39	---
TOTAL	2387	1502	2132	1696	9540	14329	14541	4423	3242	1303	2742	2313
MEAN	77.0	50.1	68.8	54.7	341	462	485	143	108	42.0	88.5	77.1
MAX	262	201	314	338	3390	2000	4280	501	500	176	400	500
MIN	29	31	30	26	26	129	130	45	30	25	33	28
CFSM	.37	.24	.33	.26	1.62	2.20	2.31	.68	.51	.20	.42	.37
IN.	.42	.27	.38	.30	1.69	2.54	2.58	.78	.57	.23	.49	.41

CAL YR 1976 TOTAL 68499 MEAN 187 MAX 3510 MIN 13 CFSM .89 IN 12.13

WTR YR 1977 TOTAL 60150 MEAN 165 MAX 4280 MIN 25 CFSM .79 IN 10.66

01465500 NESHAMINY CREEK NEAR LANGHORNE, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1975 to current year.

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER QUALITY DATA, OCTOBER 1976 TO JULY 1976

DATE	TIME	CODE FOR AGENCY COL-LECTING SAMPLE	INSTAN-TANEOUS DIS-CHARGE (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (JTU)	HARD-NESS (CA,MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
OCT												
18...	1200	9813	32	410	9.5	5	110	0	0	32	7.0	74
NOV												
29...	1100	9813	42	500	7.0	4	150	0	0	35	15	92
DEC												
13...	1000	9813	58	360	3.0	8	102	0	0	26	9.0	70
FEB												
23...	1000	9813	80	460	2.0	2	100	0	0	27	10	84
MAR												
14...	1300	9813	1850	160	11.0	320	40	0	0	14	1.0	30
APR												
12...	1100	9813	333	240	15.0	7	74	0	0	19	6.5	48
MAY												
18...	1100	9813	95	370	21.0	1	82	--	0	12	12	24
JUN												
07...	1100	9813	100	190	16.0	3	115	--	0	29	10	78
JUL												
13...	1230	9813	77	230	26.0	280	58	--	0	11	7.5	46

DATE	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	TOTAL FLUO-RIDE (F) (MG/L)	TOTAL FILT-RABLE RESIDUE (MG/L)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	TOTAL RESI-DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
OCT												
18...	46	39	.2	262	6	--	2.1	.04	.04	1.3	240	.07
NOV												
29...	62	65	.1	290	10	300	2.8	.17	.64	2.1	400	.08
DEC												
13...	32	39	.1	250	<5	--	3.4	.07	1.3	.71	400	.10
FEB												
23...	50	83	.1	300	4	304	4.3	.05	3.3	.94	240	<.01
MAR												
14...	20	16	.1	554	184	738	2.1	.06	.31	1.0	25000	<.01
APR												
12...	34	21	.1	172	6	178	3.0	.06	.08	.20	320	<.01
MAY												
18...	40	40	.1	242	4	246	2.3	.07	.21	.51	190	<.01
JUN												
07...	46	46	.1	266	6	272	3.0	.09	.14	.70	230	<.01
JUL												
13...	30	24	.2	182	304	486	1.8	.07	.25	1.3	18300	1.0

01465770 POQUESSING CREEK AT TREVOSE ROAD, PHILADELPHIA, PA

LOCATION.--Lat 40°07'55", long 74°59'40", Bucks County, Hydrologic Unit 02040202, on right bank 30 ft (9 m) downstream from Trevose Road Bridge, 1 mi (1.6 km) southwest of Trevose.

DRAINAGE AREA.--5.08 mi^2 (13.2 km^2).

PERIOD OF RECORD.--July 1964 to current year.

REVISED RECORDS.--WDR PA-72: 1970(M), 1971(P). WDR PA-75-1: 1971(P), 1972(P), 1973(P), 1974(P). WDR PA-76-1: 1972(M).

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 120 ft (37 m), from topographic map.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--13 years, 7.18 ft^3/s (0.203 m^3/s), 19.20 in/yr (488 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,100 ft^3/s (59.5 m^3/s) Aug. 28, 1971, gage height, 8.38 ft (2.554 m) in gage well, 9.10 ft (2.774 m) outside, from floodmark, from rating curve extended above 800 ft^3/s (22.7 m^3/s) on basis of contracted-opening measurement of peak flow; minimum daily, 0.1 ft^3/s (0.003 m^3/s) Aug. 31, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 400 ft^3/s (11.3 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Mar. 22	1445	639	18.1	5.70	1.737	Sept. 20	0245	484	13.7	5.02	1.530
July 12	0945	624	17.7	5.64	1.719	Sept. 24	0130	735	20.8	6.05	1.844
Aug. 1	1800	*747	21.2	*6.09	1.856	Sept. 25	0600	486	13.8	5.03	1.533

Minimum discharge, 0.63 ft^3/s (0.018 m^3/s) July 24, gage height, 1.23 ft (0.375 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	2.3	1.2	1.1	.80	1.6	2.0	2.0	10	1.2	68	3.6
2	1.8	1.8	1.2	1.0	.90	1.4	15	2.0	12	1.1	4.2	2.0
3	2.5	1.7	1.1	.95	1.2	1.3	4.6	1.9	1.5	1.0	19	1.9
4	1.7	1.6	1.2	.90	1.1	21	15	3.6	1.4	1.0	2.8	1.8
5	1.3	1.5	1.2	1.0	1.0	8.0	64	11	1.3	1.0	1.9	1.9
6	1.3	1.4	1.2	1.8	.90	2.2	6.7	3.4	7.4	3.2	9.4	20
7	1.3	1.4	25	3.1	.80	1.9	5.4	2.5	2.2	4.0	2.2	3.6
8	1.3	1.4	2.4	1.9	1.0	1.8	5.2	2.2	1.5	1.2	1.8	2.2
9	32	1.5	1.6	2.0	1.5	1.7	4.4	2.8	33	.96	1.6	2.0
10	2.3	1.6	1.4	30	5.0	1.6	4.4	2.3	4.2	.90	3.6	2.2
11	1.5	1.6	1.4	3.0	10	1.6	4.0	2.2	2.6	.84	1.9	1.8
12	1.3	1.6	1.6	2.0	7.0	1.6	3.8	2.0	2.2	61	1.6	1.8
13	1.3	1.6	1.3	1.7	5.0	45	3.6	2.0	2.1	2.2	9.4	1.8
14	1.2	1.5	1.3	1.5	3.5	9.3	3.6	2.0	2.6	1.3	12	1.8
15	1.3	1.6	1.4	2.0	2.9	3.3	3.4	1.9	3.0	1.1	2.3	1.7
16	1.3	1.5	1.3	1.5	2.3	2.5	3.2	1.9	2.0	1.1	1.8	1.9
17	1.2	1.5	1.3	1.3	2.0	2.1	3.4	2.0	1.9	1.0	4.2	7.4
18	1.2	1.4	1.2	1.2	1.9	12	3.0	4.0	1.9	.95	1.9	1.9
19	1.1	1.3	1.2	1.1	1.9	3.1	2.8	2.6	1.8	.97	1.6	4.2
20	33	1.3	3.0	1.0	3.5	3.2	2.8	2.2	4.9	1.2	1.6	41
21	8.1	1.3	2.4	.96	2.3	2.6	2.8	1.9	2.3	.90	1.5	2.2
22	1.7	1.3	1.3	.92	2.0	126	2.6	1.8	1.8	.79	36	1.9
23	1.5	1.3	1.3	.90	2.1	8.5	3.2	1.8	1.7	.76	2.2	4.9
24	2.1	1.3	1.2	1.0	32	3.8	11	1.8	1.7	.71	17	98
25	2.2	1.3	1.3	1.5	18	3.4	6.7	1.8	1.8	6.4	4.0	64
26	5.7	1.3	2.3	1.3	2.2	3.1	32	1.7	1.7	1.1	2.2	4.6
27	1.6	1.2	1.5	1.2	1.8	2.9	4.2	1.6	1.6	.81	1.9	9.0
28	1.5	1.2	1.4	1.1	1.9	2.9	4.9	1.6	14	.81	1.9	5.4
29	1.4	4.2	1.3	1.0	---	2.8	3.6	1.4	5.2	.86	1.8	2.6
30	1.4	1.3	1.3	.90	---	2.5	1.8	1.5	1.2	1.6	1.8	2.3
31	23	---	1.3	.85	---	2.2	---	1.4	---	1.2	12	---
TOTAL	150.1	46.8	69.1	71.68	116.50	286.9	233.1	74.8	132.5	103.16	235.1	301.4
MEAN	4.84	1.56	2.23	2.31	4.16	9.25	7.77	2.41	4.42	3.33	7.58	10.0
MAX	33	4.2	25	30	32	126	64	11	33	61	68	98
MIN	1.1	1.2	1.1	.85	.80	1.3	1.8	1.4	1.2	.71	1.5	1.7
CFSM	.95	.31	.44	.46	.82	1.82	1.53	.47	.87	.66	1.49	1.97
IN.	1.10	.34	.51	.52	.85	2.10	1.71	.55	.97	.76	1.72	2.21

CAL YR 1976 TOTAL 1901.93 MEAN 5.20 MAX 107 MIN .81 CFSM 1.02 IN 13.92
WTR YR 1977 TOTAL 1821.14 MEAN 4.99 MAX 126 MIN .71 CFSM .98 IN 13.33

01465785 WALTON RUN AT PHILADELPHIA, PA

LOCATION.--Lat 40°05'22", long 74°59'37", Philadelphia County, Hydrologic Unit 02040202, on right bank 110 ft (34 m) downstream from bridge on Decatur Road, 1 mi (1.6 km) upstream from mouth, Philadelphia.

DRAINAGE AREA.--2.17 mi² (5.62 km²).

PERIOD OF RECORD.--July 1964 to current year.

REVISED RECORDS.--WDR PA-75-1: Datum.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 75.49 ft (23.009 m) above mean sea level.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--13 years, 3.31 ft³/s (0.094 m³/s), 20.69 in/yr (526 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,430 ft³/s (40.5 m³/s) Aug. 27, 1967, gage height, 9.46 ft (2.883 m), from rating extended above 740 ft³/s (21.0 m³/s) on basis of step-backwater analysis; no flow part of each day July 23-24, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 250 ft³/s (7.08 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 25	Unknown	320	9.06	5.05	1.539	July 12	0930	322	9.12	5.06	1.542
Mar. 13	1515	298	8.44	4.94	1.506	Aug. 1	1830	*832	23.6	*7.97	2.429
Mar. 22	1415	468	13.3	5.91	1.801	Aug. 3	1515	597	16.9	6.72	2.048
Apr. 5	Unknown	294	8.33	4.92	1.500	Aug. 24	1700	308	8.72	4.99	1.521
June 1	2340	337	9.54	5.14	1.567	Sept.24	Unknown	Unknown		Unknown	
June 28	2005	330	9.35	5.10	1.554	Sept.25	Unknown	Unknown		Unknown	

No flow part of each day July 23-24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.0	.90	.37	.30	.18	.60	.63	.49	8.4	.53	85	.50
2	.95	.52	.41	.25	.30	.52	11	.67	7.8	.43	1.0	.16
3	5.4	.58	.43	.22	.51	.50	1.6	.63	.51	.39	40	.07
4	.96	.60	.53	.20	.50	10	15	2.1	.28	.39	.71	.05
5	.64	.58	.47	.25	.30	2.0	26	5.4	.25	.43	.35	.05
6	.60	.52	.53	.80	.14	.80	.63	.87	6.4	2.7	5.9	5.9
7	.57	.50	22	1.3	.10	.60	.63	.56	1.3	1.9	.27	.40
8	.54	.52	.85	.73	.15	.55	.58	.42	.42	.80	.22	.20
9	27	.58	.51	.34	.70	.50	.58	1.1	31	.41	.24	.10
10	.74	.63	.49	26	2.2	.49	.58	.68	1.2	.35	4.2	.25
11	.56	.60	.39	1.2	4.8	.48	.58	.61	.36	.41	.47	.15
12	.50	.68	.55	.69	2.5	.48	.63	.61	.31	23	.57	.10
13	.48	.63	.43	.50	1.5	28	.66	.50	.38	.67	8.2	.05
14	.46	.60	.43	.40	1.0	3.1	1.7	.36	.84	.46	11	.05
15	.60	.58	.49	1.2	.90	.83	.81	.39	3.1	.41	.51	.05
16	.55	.58	.47	.69	.80	.63	.64	.49	.37	.31	.41	.20
17	.50	.53	.49	.50	.75	.59	1.3	.49	.39	.32	1.6	3.0
18	.47	.53	.39	.35	.70	9.8	.71	3.6	.38	.34	.31	.70
19	.45	.53	.34	.30	.70	.76	.82	1.1	.24	.39	.19	2.0
20	25	.46	3.0	.26	1.5	1.4	.79	.55	3.5	1.7	.12	20
21	3.7	.30	1.3	.23	.80	.83	.79	.37	.60	.65	.13	.80
22	.78	.36	.43	.21	.75	73	.78	.32	.54	.14	24	.50
23	.60	.44	.43	.20	.70	2.7	.52	.48	.47	.02	.28	1.5
24	.70	.41	.29	.25	15	1.1	4.6	.55	.43	.01	15	40
25	1.0	.34	.27	.70	8.0	.77	1.5	.63	1.1	5.4	.67	20
26	4.0	.21	1.5	.40	.90	.55	28	.52	.32	.28	.26	1.0
27	.60	.19	.39	.30	.60	.48	1.9	.49	.37	.15	.13	4.0
28	.55	.17	.47	.25	1.0	.61	4.4	.34	23	.07	.10	2.0
29	.52	3.6	.51	.23	---	.71	1.5	.29	3.0	.10	.23	.50
30	.50	.40	.42	.21	---	.65	.61	.32	.58	2.6	.28	.40
31	13	---	.33	.19	---	.62	---	.37	---	.08	5.2	---
TOTAL	99.92	18.07	39.91	39.65	47.98	144.65	110.47	26.30	97.84	45.84	207.55	104.68
MEAN	3.22	.60	1.29	1.28	1.71	4.67	3.68	.85	3.26	1.48	6.70	3.49
MAX	27	3.6	22	26	15	73	28	5.4	31	23	85	40
MIN	.45	.17	.27	.19	.10	.48	.52	.29	.24	.01	.10	.05
CFSM	1.48	.28	.59	.59	.79	2.15	1.70	.39	1.50	.68	3.09	1.61
IN.	1.71	.31	.68	.68	.82	2.48	1.89	.45	1.68	.79	3.56	1.79

CAL YR 1976 TOTAL 817.18 MEAN 2.23 MAX 50 MIN .17 CFSM 1.03 IN 14.00
WTR YR 1977 TOTAL 982.86 MEAN 2.69 MAX 85 MIN .01 CFSM 1.24 IN 16.84

01465790 BYBERRY CREEK AT CHALFONT ROAD, PHILADELPHIA, PA

LOCATION.--Lat 40°05'01", long 74°58'57", Philadelphia County, Hydrologic Unit 02040202, on right bank 200 ft (61 m) downstream from Chalfont Road Bridge, 0.2 mi (0.3 km) downstream from Walton Run, Philadelphia.

DRAINAGE AREA.--5.34 mi^2 (13.8 km^2).

PERIOD OF RECORD.--June 1965 to current year.

REVISED RECORDS.--WDR PA-75-1: Datum.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 46.84 ft (14.277 m) above mean sea level.

REMARKS.--Records fair except those for the periods Oct. 1 to Feb. 10 and July 6 to Sept. 21, which are poor.

AVERAGE DISCHARGE.--12 years, 8.42 ft^3/s (0.238 m^3/s), 21.40 in/yr (544 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,930 ft^3/s (54.7 m^3/s) Aug. 28, 1971, gage height, 12.47 ft (3.801 m), from floodmark, from rating curve extended above 950 ft^3/s (26.9 m^3/s); minimum, 0.4 ft^3/s (0.011 m^3/s) August 4, 1965; minimum gage height, 1.27 ft (0.387 m) June 4, 1965, before completion of control.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 400 ft^3/s (11.3 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Mar. 22	1500	610	17.3	7.38	2.249	Sept. 24	0300	489	13.8	6.60	2.012
Aug. 1	Unknown	Unknown		Unknown		Sept. 25	Unknown	Unknown		Unknown	

Minimum daily discharge, 0.85 ft^3/s (0.024 m^3/s) July 29.

NOTE.--No gage-height record Oct. 1 to Jan. 5 and July 6 to Sept. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	2.5	1.3	1.3	1.0	2.2	2.4	1.9	2.6	1.2	150	3.5
2	3.0	2.0	1.2	1.2	1.5	1.9	24	1.9	19	1.2	8.0	1.5
3	10	2.0	1.0	1.1	1.3	1.9	4.2	1.9	1.5	1.4	60	1.3
4	2.5	1.9	1.0	1.0	1.2	29	20	4.7	1.4	1.4	10	2.0
5	1.5	1.8	1.0	1.0	1.1	9.9	66	12	1.2	1.7	2.5	1.5
6	1.4	1.8	1.5	2.0	1.0	2.0	6.6	2.4	12	4.5	15	20
7	1.3	1.8	40	2.9	1.0	1.9	3.3	1.9	2.3	5.0	4.0	5.0
8	1.2	1.8	6.0	2.3	1.2	1.9	2.7	1.7	1.4	2.0	2.0	2.0
9	60	2.0	1.5	2.0	1.5	1.7	2.6	2.6	56	1.2	1.5	1.7
10	3.5	2.0	1.4	65	5.0	1.6	2.4	2.0	2.8	1.0	8.0	2.0
11	1.5	2.0	1.2	17	23	1.6	2.6	1.9	1.6	5.0	4.0	1.4
12	1.3	2.0	2.0	3.3	14	1.6	2.6	2.0	1.5	50	2.0	1.3
13	1.2	2.0	1.5	2.1	8.5	47	2.6	1.9	1.6	3.5	20	1.3
14	1.1	2.0	1.3	1.8	2.6	9.6	3.6	1.7	1.7	1.5	30	1.5
15	2.0	1.9	1.1	3.0	2.2	2.4	2.6	1.6	6.7	1.0	3.5	1.6
16	1.5	1.9	1.3	2.3	1.9	2.0	2.4	1.7	1.5	1.1	1.5	1.8
17	1.3	1.9	1.3	2.0	1.9	2.0	2.8	1.7	1.6	1.3	5.0	7.0
18	1.2	1.8	1.2	1.7	1.7	18	2.2	7.7	1.6	1.1	2.5	3.5
19	1.2	1.8	1.1	1.6	1.6	2.4	2.2	2.8	1.5	1.0	1.3	10
20	45	1.7	4.5	1.4	4.1	3.0	2.2	2.0	6.8	2.0	2.0	40
21	10	1.7	2.5	1.3	1.7	2.6	2.0	1.9	2.0	1.2	3.5	1.5
22	2.0	1.8	1.5	1.2	1.7	122	2.0	1.9	1.5	1.0	60	1.1
23	1.5	1.8	1.2	1.1	1.7	9.9	2.0	3.3	1.6	.90	3.0	5.5
24	2.0	1.8	1.0	1.2	65	3.4	8.1	1.9	1.5	1.5	20	100
25	2.5	2.0	1.2	2.0	20	2.6	4.7	1.7	4.8	7.0	7.0	50
26	10	1.8	2.5	1.7	3.1	2.4	47	1.9	1.6	2.0	2.0	4.5
27	2.0	1.8	1.5	1.5	2.4	2.2	5.8	1.7	1.7	1.0	1.5	12
28	1.5	1.6	1.3	1.3	2.4	2.4	8.4	2.0	39	.90	1.4	6.0
29	1.3	6.0	1.7	1.2	---	2.4	4.6	1.2	12	.85	1.5	3.5
30	1.2	1.5	1.5	1.1	---	2.4	2.0	1.4	2.0	3.0	1.7	2.5
31	30	---	1.4	1.0	---	2.2	---	1.4	---	1.5	20	---
TOTAL	220.7	60.4	89.7	130.6	175.3	298.1	246.6	78.3	194.0	108.95	454.4	296.5
MEAN	7.12	2.01	2.89	4.21	6.26	9.62	8.22	2.53	6.47	3.51	14.7	9.88
MAX	60	6.0	40	65	65	122	66	12	56	50	150	100
MIN	1.1	1.5	1.0	1.0	1.0	1.6	2.0	1.2	1.2	.85	1.3	1.1
CFSM	1.33	.38	.54	.79	1.17	1.80	1.54	.47	1.21	.66	2.75	1.85
IN.	1.54	.42	.62	.91	1.22	2.08	1.72	.55	1.35	.76	3.16	2.07

CAL YR 1976 TOTAL 2140.50 MEAN 5.85 MAX 100 MIN 1.0 CFSM 1.10 IN 14.91
WTR YR 1977 TOTAL 2353.55 MEAN 6.45 MAX 150 MIN .85 CFSM 1.21 IN 16.39

01465798 POQUESSING CREEK AT GRANT AVENUE, PHILADELPHIA, PA

LOCATION.--Lat 40°03'25", long 74°59'08", Philadelphia County, Hydrologic Unit 02040202, on right bank 600 ft (183 m) upstream from Delaware River Expressway and 3,000 ft (914 m) upstream from mouth in northeast Philadelphia.

DRAINAGE AREA.--21.4 mi^2 (55.4 km^2).

PERIOD OF RECORD.--July 1965 to September 1970, July 1974 to current year.

GAGE.--Water-stage recorder and concrete low-water control. Datum of gage is 2.68 ft (0.817 m) above mean sea level.

REMARKS.--Records good except those for Jan. 1 to Feb. 6, which are fair.

AVERAGE DISCHARGE.--8 years (1965-70, 1975-77), 27.9 ft^3/s (0.790 m^3/s), 17.73 in/yr (450 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,660 ft^3/s (132 m^3/s) Aug. 27, 1967, gage height, 10.98 ft (3.347 m), from rating curve extended above 550 ft^3/s (15.6 m^3/s); minimum, 1.1 ft^3/s (0.031 m^3/s) Aug. 29, 1966, gage height, 2.43 ft (0.741 m).

EXTREMES OUTSIDE OF PERIOD OF RECORD.--Flood of Aug. 28, 1971 reached a stage of 13.05 ft (3.978 m), from floodmark, discharge, 7,380 ft^3/s (209 m^3/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 800 ft^3/s (22.7 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 24	2245	1,250	35.4	7.00	2.134
Mar. 22	1545	2,150	60.9	8.36	2.548
Apr. 5	0400	812	23.0	6.16	1.878
June 9	1045	855	24.2	6.25	1.905
June 28	2245	826	23.4	6.19	1.887
Aug. 1	2015	*3,320	94.0	*9.72	2.963
Aug. 3	1600	1,100	31.2	6.74	2.054
Aug. 14	0015	1,060	30.0	6.67	2.033
Aug. 22	0515	1,430	40.5	7.32	2.231
Sept.24	0415	1,660	47.0	7.65	2.332
Sept.25	0800	1,470	41.6	7.38	2.249

Minimum discharge, 1.8 ft^3/s (0.051 m^3/s) Dec. 3, gage height, 2.56 ft (0.780 m), result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	67	8.3	3.7	2.5	2.5	7.1	6.2	9.2	6.8	4.7	740	13
2	9.2	5.5	3.6	2.3	3.4	6.1	73	8.9	63	4.3	76	7.2
3	35	4.8	3.2	2.1	3.4	5.6	28	8.7	6.2	3.9	252	7.2
4	10	4.8	3.4	2.0	3.1	75	45	17	4.8	3.7	25	9.4
5	4.8	4.5	3.4	2.0	2.9	61	313	50	4.7	3.4	9.4	8.9
6	4.3	4.8	3.6	2.2	2.7	12	33	23	41	14	66	60
7	4.1	5.0	136	3.7	2.5	8.6	15	11	14	22	17	26
8	4.1	5.0	13	3.9	3.1	7.3	13	8.0	4.8	14	8.5	9.4
9	206	5.2	5.2	3.1	3.7	6.6	11	12	218	4.3	6.9	8.5
10	12	5.7	4.8	182	20	5.8	9.7	8.5	21	2.9	30	8.9
11	5.0	6.0	4.5	25	50	5.5	9.2	7.4	7.5	3.2	17	7.2
12	4.3	6.0	5.0	7.9	44	5.4	8.8	7.4	5.9	145	8.5	6.9
13	4.3	6.3	4.5	4.3	40	163	8.6	6.8	5.6	14	80	6.9
14	4.1	6.0	3.7	3.7	22	67	9.4	6.5	5.8	4.1	149	7.2
15	4.8	5.5	3.9	4.5	16	18	9.9	6.2	30	3.0	14	7.2
16	5.5	5.5	3.9	4.8	10	14	9.9	6.1	5.7	3.4	7.5	7.2
17	4.5	5.2	4.1	3.6	8.0	7.5	9.9	6.4	5.1	4.3	17	26
18	4.2	5.2	3.7	3.4	6.9	66	9.9	24	5.5	3.7	10	11
19	4.0	5.0	3.6	3.2	6.9	16	9.2	21	5.6	3.6	5.5	40
20	164	4.7	9.2	3.0	17	12	8.8	7.6	21	6.9	8.0	138
21	61	4.5	17	2.9	9.9	13	8.5	7.3	15	3.7	12	7.5
22	6.3	5.0	4.1	2.8	7.2	572	8.7	7.3	5.5	2.6	233	6.6
23	4.8	5.2	3.9	2.8	7.5	54	8.4	9.2	5.2	2.4	12	10
24	6.6	5.5	3.4	2.9	217	18	23	7.3	6.6	2.3	92	318
25	11	5.5	3.4	3.9	137	12	34	6.4	37	22	27	327
26	35	5.5	7.5	4.5	16	10	172	5.9	7.5	7.2	11	31
27	5.7	5.8	5.2	3.4	11	8.9	41	6.2	5.5	2.8	7.5	35
28	4.5	5.8	3.9	3.1	11	8.9	28	7.4	113	2.5	8.0	43
29	4.3	23	3.7	2.9	---	9.1	34	5.2	77	2.3	8.5	16
30	4.1	6.0	3.1	2.8	---	7.8	11	4.5	6.6	11	9.4	12
31	112	---	3.1	2.7	---	7.1	---	4.7	---	4.3	66	---
TOTAL	816.5	180.8	284.3	303.9	684.7	1290.3	1009.1	327.1	760.9	331.5	2033.7	1222.2
MEAN	26.3	6.03	9.17	9.80	24.5	41.6	33.6	10.6	25.4	10.7	65.6	40.7
MAX	206	23	136	182	217	572	313	50	218	145	740	327
MIN	4.0	4.5	3.1	2.0	2.5	5.4	6.2	4.5	4.7	2.3	5.5	6.6
CFSM	1.23	.28	.43	.46	1.15	1.94	1.57	.50	1.19	.50	3.07	1.90
IN.	1.42	.31	.49	.53	1.19	2.24	1.75	.57	1.32	.58	3.54	2.12

CAL YR 1976 TOTAL 8356.5 MEAN 22.8 MAX 493 MIN 3.1 CFSM 1.07 IN 14.53
WTR YR 1977 TOTAL 9245.0 MEAN 25.3 MAX 740 MIN 2.0 CFSM 1.18 IN 16.07

01467030 DELAWARE RIVER AT TORRESDALE INTAKE AT PHILADELPHIA, PA

LOCATION.--Lat 40°01'57", long 74°59'46", Philadelphia County, Hydrologic Unit 02040202, water-quality recorder (40°02'05", 74°59'57") located on right bank in inactive building at Torresdale Filter Plant, 1.7 mi (2.7 km) downstream from Poquessing Creek.

DRAINAGE AREA.--7,781 mi^2 (20,200 km^2).

PERIOD OF RECORD.-- August 1949 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1963 to current year.
pH: June 1968 to current year.
WATER TEMPERATURES: October 1956 to September 1957, November 1960 to current year.
DISSOLVED OXYGEN: January 1961 to current year.

REMARKS.--Further information on this station is given in U.S. Geological Survey Water-Supply Paper 1809-0.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 865 micromhos Jan. 10, 1977; minimum, 71 micromhos July 24, 1970.
pH: Maximum, 8.1 Dec. 30, 1970; minimum, 4.9 Apr. 5, 1969.
WATER TEMPERATURES: Maximum, 32.5°C July 21, 1977; minimum, freezing point on many days during winter periods.
DISSOLVED OXYGEN: Maximum, 14.5 mg/L Feb. 4-5, 1964; minimum, 0.0 mg/L on many days during 1962 and 1965.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 865 micromhos Jan. 10; minimum, 81 micromhos Apr. 2.
pH: Maximum, 7.8 June 23; minimum, 6.5 Oct. 12.
WATER TEMPERATURES: Maximum, 32.5°C July 21; minimum, freezing point Jan. 1-10.
DISSOLVED OXYGEN: Maximum, 13.9 mg/L Jan. 11; minimum, 1.6 mg/L Sept. 8,9.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE (DEG C)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)
OCT 07...	1220	193	18.5	73	37	20	5.6	10	2.1	44	36	28
NOV 04...	1255	127	9.0	18	0	2.1	3.0	5.0	1.4	23	19	23
DEC 02...	1255	192	4.0	64	27	17	5.3	10	2.0	45	37	26
FEB 17...	1230	254	1.0	78	32	21	6.1	16	2.2	56	46	34
MAR 03...	1300	135	4.0	33	15	10	2.0	7.6	1.8	22	18	18
APR 14...	1245	123	10.0	55	32	16	3.7	5.1	1.3	28	23	18
MAY 12...	1235	136	17.0	46	21	12	4.0	6.8	1.3	31	25	19
JUN 02...	1230	182	23.5	63	29	16	5.6	9.6	1.8	42	34	26
JUL 07...	1310	226	27.5	37	79	21	6.5	13	2.2	51	42	31
AUG 04...	1305	220	28.0	29	76	20	6.3	13	2.3	57	47	30
SEP 08...	1230	249	27.0	78	36	20	6.8	16	3.2	51	42	37

DATE	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED NITRATE (N) (MG/L)	DISSOLVED NITRITE (N) (MG/L)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED ORTHO. PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
OCT 07...	15	.1	1.5	117	110	1.2	.09	1.3	.08	50	10
NOV 04...	8.5	.1	5.0	81	63	.71	.02	.73	.05	230	80
DEC 02...	14	.1	4.4	106	106	.87	.05	.92	.10	140	100
FEB 17...	26	.1	4.0	193	143	1.1	.06	1.2	.14	170	140
MAR 03...	14	.1	4.5	94	74	.97	.03	1.0	.04	200	80
APR 14...	9.0	.1	3.9	77	75	.82	.05	.87	.03	110	70
MAY 12...	9.1	.1	1.8	79	73	.61	.07	.68	.03	80	10
JUN 02...	13	.1	.2	109	97	.79	.07	.86	.04	80	30
JUL 07...	17	.1	.1	138	122	1.3	.15	1.4	.07	20	10
AUG 04...	17	.1	.3	152	123	1.2	.15	1.3	.08	50	0
SEP 08...	20	.2	.4	162	136	1.4	.13	1.5	.09	30	20

01467030 DELAWARE RIVER AT TORRESDALE INTAKE AT PHILADELPHIA, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	248	222	237	167	116	131	308	182	194	261	192	201
2	249	222	236	160	122	135	267	182	190	264	114	206
3	252	221	234	171	127	139	245	181	193	260	199	211
4	251	221	236	---	---	---	229	183	192	281	200	212
5	266	219	239	---	---	---	240	185	195	257	202	212
6	255	207	230	---	---	---	234	186	195	258	204	214
7	248	201	225	---	---	---	478	184	216	285	207	217
8	246	195	217	184	124	136	243	191	198	300	212	226
9	289	191	221	246	124	138	248	197	207	357	217	239
10	252	185	210	185	125	133	262	204	210	865	222	339
11	220	122	180	243	127	138	232	167	200	785	312	410
12	160	94	118	187	130	141	206	151	171	---	---	---
13	231	92	107	213	133	148	230	135	153	---	---	---
14	200	94	112	263	136	149	204	134	148	---	---	---
15	215	100	120	197	136	150	257	135	153	---	---	---
16	173	108	128	211	140	154	198	135	149	---	---	---
17	178	118	135	208	144	156	223	137	151	---	---	---
18	200	120	140	210	147	161	205	140	154	---	---	---
19	184	121	137	206	151	162	211	145	157	---	---	---
20	222	121	140	218	154	167	227	148	160	---	---	---
21	170	124	141	227	158	170	211	152	161	---	---	---
22	171	134	147	218	160	169	221	158	170	---	---	---
23	185	138	160	232	163	172	216	164	174	---	---	---
24	165	105	131	224	166	176	234	162	173	---	---	---
25	174	98	118	233	169	181	258	167	179	351	312	323
26	148	98	112	244	170	183	273	169	184	406	308	332
27	157	102	122	406	175	192	346	175	200	405	311	336
28	190	111	131	241	178	191	276	180	198	409	308	331
29	188	119	137	298	181	199	466	183	206	395	306	335
30	170	112	128	249	182	196	299	184	206	422	308	345
31	260	112	135	---	---	---	300	188	209	479	306	337
MONTH	289	92	163	406	116	160	478	134	182	865	114	279

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	368	299	323	247	156	176	152	92	113	152	111	119
2	410	303	323	212	142	162	184	81	99	270	114	127
3	369	300	317	235	134	157	109	84	90	205	117	126
4	357	299	312	384	133	164	---	---	---	162	120	127
5	336	301	311	325	137	163	---	---	---	186	125	136
6	446	302	329	218	141	158	110	101	104	201	132	144
7	389	305	329	180	114	134	182	109	122	203	140	146
8	352	246	287	234	112	132	172	107	120	252	143	152
9	286	243	257	312	113	139	167	107	120	222	142	153
10	308	243	258	366	114	139	215	108	123	178	136	147
11	329	251	272	216	118	137	230	109	124	191	129	139
12	362	263	286	192	127	145	177	111	123	186	130	141
13	439	264	290	---	---	---	186	117	129	194	135	144
14	516	265	289	174	132	150	159	122	130	182	138	144
15	346	267	281	150	94	116	173	125	134	188	134	144
16	333	262	275	142	86	97	170	128	137	299	133	152
17	325	246	266	164	91	110	178	131	141	250	134	147
18	310	239	260	258	103	123	196	135	145	181	134	143
19	393	234	253	190	109	126	192	140	148	183	140	149
20	307	233	248	173	117	129	217	141	151	239	140	153
21	460	234	253	197	121	137	229	145	157	219	142	148
22	354	235	253	332	124	162	211	151	161	206	146	153
23	309	235	248	165	120	134	223	157	168	180	150	157
24	287	235	247	182	125	137	196	162	168	228	154	165
25	---	---	---	205	126	140	249	163	174	339	160	177
26	---	---	---	246	126	144	215	168	177	206	145	175
27	---	---	---	258	132	154	189	153	172	211	149	179
28	---	---	---	296	134	160	167	113	132	260	175	184
29	---	---	---	305	129	160	178	110	122	199	176	181
30	---	---	---	199	133	146	151	109	117	199	176	180
31	---	---	---	208	128	142	---	---	---	203	177	183
MONTH	516	233	282	384	86	142	249	81	136	339	111	152

01467030 DELAWARE RIVER AT TORRESDALE INTAKE AT PHILADELPHIA, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	221	181	187	180	162	169	250	219	232	262	225	237
2	233	186	194	---	---	---	240	209	219	286	230	243
3	230	192	197	---	---	---	293	207	221	265	230	244
4	237	195	202	---	---	---	233	209	219	264	236	242
5	240	199	206	---	---	---	283	218	229	272	236	243
6	223	203	208	319	256	266	393	225	239	263	236	241
7	236	205	211	281	254	258	293	225	232	256	231	237
8	245	209	215	268	253	258	273	222	233	256	228	233
9	227	207	214	277	257	261	261	220	227	256	225	232
10	237	212	220	272	258	262	329	222	232	258	230	235
11	254	221	228	266	256	260	238	219	225	249	229	234
12	256	231	241	274	248	259	236	222	227	247	226	233
13	274	244	254	271	256	260	240	219	223	249	226	234
14	283	253	259	272	261	266	263	207	218	247	228	234
15	271	255	260	274	234	250	239	210	224	245	224	232
16	272	251	259	258	237	242	266	226	235	249	227	235
17	300	250	260	260	239	244	244	227	235	284	228	241
18	295	247	256	261	239	245	259	224	233	273	233	243
19	267	242	253	272	239	248	251	220	229	294	234	244
20	299	240	254	264	236	248	251	218	227	---	---	---
21	344	238	255	260	227	240	243	217	226	244	227	232
22	269	232	244	254	223	230	302	204	222	235	224	227
23	255	229	237	248	216	224	244	212	221	231	222	225
24	255	227	235	246	214	220	232	216	222	238	173	214
25	239	173	206	368	208	217	227	207	219	225	124	193
26	178	165	170	247	204	218	238	213	222	196	158	180
27	183	157	167	247	223	231	237	218	226	217	142	156
28	239	156	175	254	221	230	254	220	229	188	76	125
29	183	161	168	252	220	231	265	224	234	139	83	97
30	183	163	167	256	223	233	275	225	237	160	83	93
31	---	---	---	268	226	235	259	226	238	---	---	---
MONTH	344	156	220	368	162	241	393	204	228	294	83	216

PH (UNITS), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.3	7.0	7.1	7.1	7.0	7.1	7.4	7.2	7.2	7.6	7.3	7.4
2	7.3	7.1	7.2	7.1	7.1	7.1	7.4	7.2	7.2	7.6	7.3	7.4
3	7.3	7.1	7.2	7.1	7.1	7.1	7.3	7.1	7.3	7.3	7.2	7.3
4	7.3	7.1	7.2	---	---	---	7.3	7.2	7.3	7.3	7.2	7.3
5	7.3	7.1	7.2	---	---	---	7.3	7.2	7.3	7.3	7.2	7.3
6	7.2	7.1	7.1	---	---	---	7.3	7.2	7.2	7.3	7.2	7.3
7	7.2	6.8	7.1	---	---	---	7.3	7.1	7.2	7.3	7.2	7.3
8	7.1	7.0	7.1	7.1	7.0	7.1	7.3	7.1	7.2	7.4	7.2	7.3
9	7.2	6.9	7.1	7.5	7.0	7.2	7.4	7.2	7.3	7.3	7.2	7.3
10	7.2	7.1	7.1	7.5	7.1	7.1	7.4	7.3	7.4	7.6	7.2	7.3
11	7.1	6.9	7.0	7.5	7.1	7.1	7.4	7.3	7.3	7.5	7.3	7.4
12	6.9	6.5	6.8	7.2	7.1	7.2	7.6	7.2	7.2	---	---	---
13	7.1	6.7	6.8	7.2	7.1	7.2	7.6	7.1	7.2	---	---	---
14	7.0	6.8	6.8	7.3	7.2	7.2	7.6	7.1	7.2	---	---	---
15	7.2	6.8	6.9	7.2	7.1	7.2	7.6	7.1	7.2	---	---	---
16	7.0	6.9	6.9	7.2	7.0	7.1	7.5	6.8	7.1	---	---	---
17	7.0	6.9	6.9	7.2	7.1	7.2	7.3	7.1	7.1	---	---	---
18	7.1	6.8	6.9	7.2	7.1	7.2	7.2	6.9	7.1	---	---	---
19	7.0	6.8	6.9	7.2	7.1	7.2	7.3	7.1	7.2	---	---	---
20	7.0	6.9	6.9	7.2	6.7	7.1	7.3	7.1	7.2	---	---	---
21	7.0	6.6	7.0	7.3	7.0	7.2	7.3	7.2	7.2	---	---	---
22	7.1	7.0	7.1	7.3	7.1	7.2	7.5	7.2	7.3	---	---	---
23	7.1	7.0	7.1	7.3	7.2	7.2	7.3	7.2	7.3	---	---	---
24	7.1	6.9	7.0	7.3	7.2	7.2	7.3	7.2	7.3	---	---	---
25	7.0	6.8	6.9	7.3	7.1	7.2	7.3	7.2	7.3	7.1	7.1	7.1
26	7.0	6.8	6.9	7.3	7.2	7.2	7.3	7.2	7.2	7.2	7.1	7.1
27	7.0	6.9	7.0	7.4	7.2	7.2	7.4	7.2	7.3	7.3	7.1	7.2
28	7.1	7.0	7.1	7.3	7.1	7.2	7.3	7.2	7.2	7.3	7.1	7.2
29	7.1	7.0	7.1	7.3	7.1	7.2	7.4	7.2	7.2	7.4	7.2	7.3
30	7.1	7.0	7.1	7.3	7.1	7.2	7.4	7.3	7.3	7.3	7.2	7.3
31	7.1	7.0	7.1	---	---	---	7.4	7.3	7.3	7.3	7.3	7.3
MONTH	7.3	6.5	7.0	7.5	6.7	7.2	7.6	6.8	7.2	7.6	7.1	7.3

01467030 DELAWARE RIVER AT TORRESDALE INTAKE AT PHILADELPHIA, PA--Continued

PH (UNITS), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	7.4	7.3	7.3	7.2	6.9	7.1	7.6	7.0	7.2	7.2	7.0	7.0
2	7.3	7.2	7.3	7.2	7.0	7.1	7.1	6.9	7.0	7.6	7.0	7.1
3	7.3	7.2	7.3	7.2	7.0	7.1	7.0	7.0	7.0	7.5	6.9	7.0
4	7.3	7.2	7.3	7.2	6.9	7.0	---	---	---	7.5	7.0	7.1
5	7.3	7.1	7.2	7.5	7.0	7.1	---	---	---	7.4	7.0	7.0
6	7.3	7.2	7.3	7.5	7.0	7.1	7.1	7.0	7.1	7.4	6.9	7.1
7	7.3	7.2	7.2	7.1	6.9	7.0	7.5	7.1	7.2	7.5	7.0	7.1
8	7.3	7.1	7.2	7.5	6.8	7.0	7.6	7.1	7.2	7.5	7.0	7.1
9	7.2	7.1	7.2	7.1	6.9	7.0	7.5	7.0	7.2	7.6	7.1	7.2
10	7.6	7.0	7.1	7.2	6.8	7.0	7.6	7.1	7.2	7.5	7.1	7.2
11	7.2	7.0	7.1	7.5	6.9	7.1	7.3	7.1	7.2	7.6	7.1	7.2
12	7.2	7.1	7.2	7.4	7.0	7.1	7.6	7.1	7.2	7.6	7.1	7.3
13	7.2	7.1	7.2	---	---	---	7.6	7.1	7.3	7.6	7.1	7.3
14	7.6	7.2	7.2	7.1	7.1	7.1	7.6	7.1	7.3	7.4	7.2	7.3
15	7.3	7.2	7.2	7.1	6.8	6.9	7.6	7.1	7.2	7.4	7.2	7.3
16	7.3	7.2	7.3	7.0	6.7	6.8	7.3	7.1	7.2	7.3	7.1	7.3
17	7.6	7.2	7.3	7.0	6.8	6.9	7.3	7.1	7.2	7.4	7.2	7.3
18	7.6	7.2	7.3	7.5	6.9	7.1	7.6	7.1	7.2	7.4	7.1	7.2
19	7.6	7.0	7.3	7.5	7.0	7.2	7.6	7.1	7.3	7.4	7.2	7.3
20	7.6	6.8	7.3	7.5	7.0	7.1	7.5	7.1	7.2	7.4	7.1	7.3
21	7.6	7.1	7.3	7.5	7.0	7.1	7.6	7.0	7.3	7.4	7.1	7.3
22	7.4	7.2	7.3	7.6	7.0	7.1	7.6	7.1	7.3	7.6	7.1	7.3
23	7.6	7.1	7.3	7.5	7.0	7.2	7.3	7.1	7.2	7.5	7.1	7.2
24	7.4	7.2	7.3	7.3	7.0	7.2	7.6	7.1	7.2	7.1	7.0	7.1
25	---	---	---	7.2	7.1	7.2	7.6	7.1	7.2	7.1	6.9	7.0
26	---	---	---	7.2	7.1	7.2	7.6	7.1	7.3	7.0	6.8	6.9
27	---	---	---	7.3	7.1	7.2	7.3	7.1	7.2	7.2	6.9	7.0
28	---	---	---	7.5	7.1	7.2	7.2	7.0	7.1	7.3	6.9	7.0
29	---	---	---	7.3	7.2	7.2	7.1	6.9	7.0	7.3	6.9	7.1
30	---	---	---	7.3	7.1	7.2	7.4	7.0	7.0	7.1	6.9	7.1
31	---	---	---	7.2	7.2	7.2	---	---	---	7.1	6.9	7.0
MONTH	7.6	6.8	7.3	7.6	6.7	7.1	7.6	6.9	7.2	7.6	6.8	7.2

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	7.0	6.9	7.0	7.3	7.0	7.1	7.3	7.0	7.1	7.1	6.8	7.0
2	7.0	6.7	6.9	---	---	---	7.1	7.0	7.0	7.1	6.9	7.0
3	7.0	6.8	6.9	---	---	---	7.0	6.9	7.0	7.0	6.9	6.9
4	7.0	6.8	6.9	---	---	---	7.0	6.9	6.9	7.1	6.8	7.0
5	7.0	6.8	6.9	---	---	---	7.2	6.9	7.0	7.1	6.9	7.0
6	7.0	6.8	6.9	7.5	7.1	7.2	7.1	6.9	6.9	7.0	6.9	7.0
7	6.9	6.8	6.9	7.2	7.1	7.2	7.1	6.9	7.0	7.0	6.8	6.9
8	7.0	6.8	6.9	7.2	7.0	7.1	7.1	6.9	7.0	7.0	6.8	6.9
9	7.0	6.8	6.9	7.2	7.0	7.1	7.1	6.9	7.0	7.0	6.8	6.9
10	6.9	6.8	6.9	7.3	7.0	7.1	7.3	6.9	7.1	7.0	6.8	6.9
11	---	---	---	7.3	7.1	7.1	7.2	6.9	7.0	7.0	6.8	7.0
12	---	---	---	7.2	7.1	7.1	7.3	6.9	7.0	7.1	6.9	7.0
13	---	---	---	7.1	7.1	7.1	7.0	6.9	7.0	7.2	6.8	7.0
14	7.5	7.1	7.2	7.2	7.0	7.1	7.0	6.8	7.0	7.2	6.9	7.1
15	7.5	7.1	7.3	7.2	6.9	7.1	7.0	6.8	6.9	7.2	6.9	7.1
16	7.7	7.2	7.5	7.2	6.9	7.1	7.1	6.8	7.0	7.2	6.9	7.0
17	7.7	7.2	7.5	7.2	6.9	7.1	7.1	6.9	7.0	7.1	6.9	7.0
18	7.6	7.3	7.5	7.2	6.9	7.1	7.0	6.8	6.9	7.2	6.9	7.0
19	7.6	7.3	7.4	7.2	6.9	7.1	7.1	6.8	6.9	7.1	6.9	7.0
20	7.7	7.3	7.5	7.2	6.9	7.0	7.0	6.8	6.9	---	---	---
21	7.7	7.4	7.5	7.2	6.9	7.0	7.1	6.8	6.9	7.1	6.9	7.0
22	7.7	7.4	7.5	7.3	7.0	7.1	7.1	6.8	7.0	7.0	6.9	7.0
23	7.8	7.4	7.5	7.4	7.0	7.1	7.1	6.9	7.0	7.0	6.9	7.0
24	7.7	7.3	7.5	7.6	7.0	7.2	7.1	6.8	7.0	7.0	6.8	6.9
25	7.4	7.2	7.3	7.3	7.1	7.2	7.5	6.9	7.1	7.0	6.8	6.9
26	7.3	7.0	7.2	7.4	7.0	7.2	7.1	6.9	7.0	7.0	6.9	6.9
27	7.1	7.0	7.1	7.5	7.0	7.2	7.1	6.8	7.0	6.9	6.7	6.9
28	7.4	7.0	7.2	7.4	7.0	7.3	7.1	6.9	7.0	6.9	6.7	6.8
29	7.2	7.0	7.1	7.5	7.0	7.3	7.1	6.9	7.0	6.8	6.6	6.7
30	7.2	7.0	7.1	7.3	7.0	7.2	7.1	6.9	7.0	6.9	6.6	6.7
31	---	---	---	7.3	6.9	7.1	7.2	6.9	7.0	---	---	---
MONTH	7.8	6.7	7.2	7.6	6.9	7.1	7.5	6.8	7.0	7.2	6.6	6.9

01467030 DELAWARE RIVER AT TORRESDALE INTAKE AT PHILADELPHIA, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	19.5	17.5	19.0	9.5	8.5	9.0	6.5	1.5	4.0	2.0	0.0	1.0
2	19.0	17.5	18.5	9.0	7.5	8.5	4.5	1.5	3.5	8.0	0.0	1.0
3	18.5	17.0	18.0	9.0	8.5	9.0	4.0	1.5	3.5	0.5	0.0	0.5
4	19.0	17.0	18.5	---	---	---	4.0	1.0	3.5	0.5	0.0	0.5
5	19.0	17.5	18.5	---	---	---	4.0	1.0	3.5	0.5	0.0	0.0
6	18.5	17.5	18.0	---	---	---	4.0	1.0	3.0	0.0	0.0	0.0
7	18.5	17.5	18.0	---	---	---	8.0	1.5	4.5	0.5	0.0	0.0
8	18.5	18.0	18.0	8.5	6.5	8.0	7.0	1.0	3.5	0.0	0.0	0.0
9	19.5	18.0	18.5	7.5	6.0	7.0	3.0	1.5	2.5	0.0	0.0	0.0
10	18.0	17.5	17.5	7.5	6.5	7.0	3.5	1.5	2.5	2.0	0.0	0.5
11	17.0	15.5	16.5	7.0	6.0	6.5	3.5	1.5	2.5	2.0	1.0	1.0
12	15.5	14.5	15.0	6.5	6.0	6.5	2.0	1.5	2.0	---	---	---
13	16.0	14.5	14.5	8.0	5.5	6.0	2.5	1.0	1.5	---	---	---
14	15.0	14.0	14.0	7.0	5.0	5.5	1.5	0.5	1.0	---	---	---
15	15.0	13.0	14.0	6.0	5.0	5.5	2.0	0.5	1.0	---	---	---
16	14.5	13.5	14.0	6.0	5.0	5.5	2.5	1.5	2.0	---	---	---
17	14.0	13.0	13.5	6.0	5.0	5.5	3.0	2.0	2.5	---	---	---
18	13.5	12.0	13.0	6.0	5.5	5.5	3.0	2.0	2.5	---	---	---
19	13.0	11.0	12.5	6.0	5.5	6.0	3.0	1.5	2.5	---	---	---
20	14.0	12.0	12.5	6.0	5.5	6.0	3.5	2.5	3.0	---	---	---
21	13.5	11.5	13.0	7.5	5.5	6.0	3.0	1.5	2.5	---	---	---
22	12.0	11.5	12.0	8.0	4.5	5.5	2.0	1.0	2.0	---	---	---
23	11.5	11.0	11.5	7.5	4.5	5.0	3.0	1.0	2.0	---	---	---
24	11.5	10.5	11.0	7.0	4.0	5.0	3.0	1.5	2.0	---	---	---
25	11.0	10.5	10.5	7.0	4.5	5.5	2.0	1.0	1.5	0.5	0.5	0.5
26	13.0	10.5	10.5	8.0	4.5	5.5	3.0	1.5	2.0	1.0	0.5	0.5
27	11.0	10.0	10.5	7.0	5.5	6.0	2.0	1.5	1.5	1.0	0.5	0.5
28	11.0	9.5	10.0	6.5	5.5	6.0	1.5	1.0	1.5	1.0	0.5	1.0
29	11.0	9.5	10.0	8.0	5.5	6.0	1.5	1.0	1.5	2.0	0.5	1.0
30	10.5	9.0	9.5	8.0	1.5	5.0	1.0	0.5	0.5	1.0	0.5	0.5
31	11.0	9.5	9.5	---	---	---	1.0	0.5	0.5	1.0	0.5	0.5
MONTH	19.5	9.0	14.0	9.5	1.5	6.5	8.0	0.5	2.5	8.0	0.0	0.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	1.0	0.5	0.5	7.5	5.0	5.5	12.5	11.5	12.0	17.5	14.0	15.0
2	1.0	0.5	0.5	7.0	4.0	5.0	11.5	10.5	11.0	18.0	15.0	16.0
3	0.5	0.5	0.5	5.0	4.0	4.5	11.0	10.5	10.5	17.5	15.5	16.5
4	0.5	0.5	0.5	9.0	4.0	5.0	---	---	---	17.0	16.0	16.5
5	1.0	0.5	0.5	8.5	5.0	6.0	---	---	---	18.0	16.0	17.0
6	1.0	0.5	0.5	7.0	6.0	6.0	9.0	8.5	8.5	20.5	17.0	18.0
7	1.0	0.5	0.5	7.0	5.0	5.5	12.0	7.0	8.5	19.5	18.0	19.0
8	1.0	0.5	0.5	7.5	5.0	5.5	10.0	7.5	8.5	21.0	18.0	19.0
9	0.5	0.5	0.5	9.0	5.5	6.0	10.0	7.0	8.5	19.0	18.0	18.5
10	1.0	0.5	0.5	11.0	6.0	7.0	12.0	7.5	8.5	18.5	16.0	17.5
11	0.5	0.5	0.5	10.5	6.5	7.5	14.0	7.5	9.5	18.5	16.0	17.5
12	1.0	0.5	0.5	---	---	---	13.0	8.0	10.5	19.0	17.0	17.5
13	1.0	0.5	0.5	---	---	---	14.5	11.0	12.0	19.0	17.5	18.0
14	1.5	0.5	1.0	11.5	10.5	11.0	14.0	12.0	13.0	19.0	17.5	18.0
15	2.0	1.0	1.5	10.5	8.0	9.5	15.0	12.0	14.0	19.5	17.5	18.0
16	2.5	1.0	2.0	8.5	7.5	8.0	17.5	12.0	15.0	20.5	18.0	19.0
17	2.0	1.0	1.5	8.5	7.5	8.0	16.5	15.0	16.0	23.0	18.5	20.0
18	2.5	1.0	1.5	8.5	8.0	8.0	17.5	15.5	16.5	23.0	17.5	20.5
19	2.0	1.0	1.5	8.5	7.5	8.0	18.5	16.5	17.0	22.0	20.5	21.0
20	2.0	1.5	1.5	7.5	6.5	7.0	18.0	16.5	17.5	23.0	20.5	21.0
21	2.5	1.0	2.0	8.5	6.5	7.0	19.0	17.0	17.5	23.5	21.0	22.0
22	3.0	1.0	2.0	9.5	6.0	7.0	20.0	17.5	18.5	24.5	22.0	23.0
23	5.0	2.0	3.0	7.5	6.5	7.0	21.0	18.5	19.0	27.5	22.5	23.5
24	4.0	2.5	3.0	7.0	5.5	6.0	19.5	18.5	18.5	25.5	23.5	24.0
25	---	---	---	7.0	5.0	5.5	19.5	17.0	18.5	27.0	24.0	24.5
26	---	---	---	7.5	5.0	5.5	19.5	17.0	18.5	26.0	22.5	24.5
27	---	---	---	10.0	5.5	6.5	19.0	16.0	17.5	26.0	24.0	25.0
28	---	---	---	9.0	6.0	6.5	17.0	14.5	15.5	26.5	24.5	25.5
29	---	---	---	13.0	6.5	8.0	15.0	13.0	14.5	28.0	24.5	25.5
30	---	---	---	13.0	8.5	9.5	15.0	13.5	14.5	25.0	24.0	24.5
31	---	---	---	13.0	10.0	11.5	---	---	---	25.0	24.0	24.5
MONTH	5.0	0.5	1.0	13.0	4.0	7.0	21.0	7.0	14.0	28.0	14.0	20.5

01467030 DELAWARE RIVER AT TORRESDALE INTAKE AT PHILADELPHIA, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	24.5	24.0	24.5	28.0	27.0	27.5	28.5	28.0	28.5	29.0	27.0	28.0
2	25.5	23.5	24.5	---	---	---	29.5	25.0	28.0	29.5	27.5	28.0
3	25.5	24.5	24.5	---	---	---	28.0	26.5	28.0	29.5	28.0	28.5
4	25.5	23.5	24.5	---	---	---	29.5	27.0	28.0	29.5	27.5	28.5
5	27.0	24.0	24.5	---	---	---	30.0	27.5	28.5	29.0	27.5	28.0
6	24.5	23.0	24.0	30.5	28.5	29.0	29.5	28.5	29.0	28.5	27.5	28.0
7	24.0	22.5	23.5	28.5	28.0	28.5	30.0	28.0	29.0	28.0	27.0	28.0
8	23.5	21.5	23.0	29.5	27.5	28.5	30.0	28.5	29.0	28.0	26.5	27.5
9	23.0	21.5	22.5	29.5	28.0	29.0	30.5	28.5	29.5	27.5	26.0	27.0
10	22.5	20.5	22.0	29.5	28.5	29.0	30.0	29.0	29.5	27.5	26.5	27.0
11	22.5	20.5	22.0	29.0	28.0	28.5	30.0	29.0	29.5	27.0	25.5	26.5
12	22.5	21.5	22.0	29.0	28.0	28.5	30.0	29.0	29.5	26.5	25.0	26.0
13	23.5	22.5	23.0	29.5	28.5	29.0	29.5	29.0	29.5	26.0	25.0	26.0
14	24.0	23.0	23.5	30.0	29.0	29.5	29.5	28.5	29.0	25.5	25.0	25.5
15	23.5	23.0	23.0	30.5	29.0	30.0	29.5	28.5	29.0	25.5	24.0	25.0
16	24.0	23.0	23.5	31.0	29.5	30.0	30.0	29.0	29.0	25.0	24.0	24.5
17	24.5	23.5	24.0	32.0	30.0	30.5	29.0	28.5	29.0	25.5	24.5	25.0
18	25.0	24.0	24.0	31.5	30.5	31.0	29.0	27.5	28.5	26.5	24.5	25.0
19	25.5	24.5	25.0	32.0	30.5	31.0	29.0	27.5	28.0	26.0	25.0	25.5
20	26.0	24.5	25.0	31.5	31.0	31.0	29.0	27.0	28.0	---	---	---
21	26.0	24.5	25.0	32.5	31.0	31.5	28.5	26.5	27.5	25.0	24.5	25.0
22	26.5	24.5	25.5	32.0	31.0	31.5	28.0	24.5	27.0	25.0	23.5	24.5
23	27.5	25.0	25.5	31.5	30.0	30.5	28.0	26.0	27.0	24.5	23.0	24.0
24	27.0	25.0	26.0	31.0	30.0	30.5	27.5	26.0	27.0	24.0	21.0	23.5
25	26.5	25.5	26.0	30.0	28.0	29.5	27.0	25.5	26.5	23.5	19.0	22.5
26	27.0	25.5	26.0	29.5	28.0	29.0	27.0	26.0	26.5	23.0	21.5	22.5
27	27.5	26.0	26.5	29.0	27.5	29.0	27.0	26.5	26.5	22.0	19.5	21.0
28	28.5	26.5	27.0	29.0	28.0	28.5	27.5	26.5	27.0	20.0	17.0	18.5
29	28.0	26.5	27.5	29.0	28.0	28.5	28.0	27.0	27.5	18.0	16.5	17.0
30	28.0	27.0	27.5	28.5	28.0	28.5	28.5	27.0	27.5	19.0	17.0	17.5
31	---	---	---	29.5	28.0	28.5	28.5	27.5	28.0	---	---	---
MONTH	28.5	20.5	24.5	32.5	27.0	29.5	30.5	24.5	28.0	29.5	16.5	25.0

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	8.0	6.1	7.0	11.0	10.2	10.7	12.0	10.8	11.1	13.8	11.3	12.8
2	8.1	6.0	7.1	11.0	10.7	10.9	11.7	10.9	11.2	13.5	11.0	12.4
3	7.7	6.2	7.1	10.9	10.5	10.7	11.5	11.2	11.4	12.9	11.6	12.0
4	8.6	6.6	7.5	---	---	---	11.6	11.1	11.3	12.0	11.6	11.8
5	8.5	7.0	7.9	---	---	---	11.4	11.1	11.2	12.0	11.5	11.7
6	8.3	7.4	7.9	---	---	---	11.5	10.7	11.1	11.8	11.1	11.6
7	8.5	7.3	8.0	---	---	---	11.6	10.5	11.0	11.7	11.1	11.5
8	8.2	7.6	7.9	10.9	10.7	10.8	11.7	10.7	11.2	11.7	11.4	11.5
9	---	---	---	11.1	10.8	11.0	12.7	11.4	12.0	11.5	11.0	11.3
10	8.6	7.9	8.2	11.2	10.9	11.1	12.7	12.3	12.5	11.7	10.9	11.3
11	8.5	7.8	8.1	11.3	10.8	11.1	12.8	12.2	12.3	13.9	11.1	12.3
12	8.8	7.9	8.4	11.4	11.0	11.2	13.0	12.4	12.7	---	---	---
13	8.8	8.1	8.4	11.4	11.1	11.3	13.2	12.4	12.9	---	---	---
14	9.1	8.3	8.9	11.5	11.3	11.4	13.1	12.8	13.0	---	---	---
15	9.3	8.8	9.1	11.7	10.8	11.3	13.0	12.7	12.9	---	---	---
16	9.2	8.8	9.0	11.5	11.2	11.3	12.9	12.5	12.7	---	---	---
17	9.0	8.8	8.9	11.5	11.2	11.3	12.8	12.5	12.7	---	---	---
18	9.0	8.7	8.9	11.5	11.2	11.3	12.8	12.4	12.6	---	---	---
19	8.8	8.6	8.7	11.4	11.0	11.3	12.9	12.5	12.7	---	---	---
20	8.9	7.3	8.5	11.4	11.1	11.3	12.9	11.6	12.7	---	---	---
21	9.2	7.7	8.5	11.4	10.9	11.2	12.8	12.5	12.6	---	---	---
22	9.4	8.9	9.2	11.4	11.0	11.2	12.1	11.1	11.8	---	---	---
23	9.5	9.2	9.3	11.5	11.2	11.3	11.3	10.9	11.1	---	---	---
24	10.0	9.6	9.8	11.5	11.1	11.3	11.2	10.9	11.1	---	---	---
25	10.2	9.7	9.9	11.5	11.0	11.2	11.4	11.1	11.3	10.9	10.4	10.6
26	10.3	9.9	10.1	11.4	11.0	11.1	11.7	11.3	11.5	11.2	10.7	11.0
27	10.2	9.2	10.1	11.5	10.8	11.0	11.8	11.6	11.7	11.3	10.8	11.0
28	10.2	9.9	10.1	11.2	10.7	10.9	11.9	11.5	11.7	11.3	10.6	11.0
29	10.4	9.9	10.1	11.1	10.6	10.8	11.8	11.2	11.6	13.1	10.8	11.3
30	10.6	10.2	10.4	11.3	10.7	10.9	11.9	11.2	11.8	12.5	11.0	11.2
31	10.7	9.5	10.4	---	---	---	12.1	11.7	11.8	11.4	11.0	11.2
MONTH	10.7	6.0	8.8	11.7	10.2	11.1	13.2	10.5	11.9	13.9	10.4	11.5

01467030 DELAWARE RIVER AT TORRESDALE INTAKE AT PHILADELPHIA, PA--Continued

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	11.4	11.0	11.2	13.0	11.8	12.4	9.5	8.5	9.0	9.5	9.0	9.3
2	11.3	10.7	11.1	13.2	12.1	12.7	8.7	7.5	8.4	9.5	8.4	9.3
3	11.5	10.6	11.1	13.2	12.2	12.6	8.0	7.4	7.6	9.3	8.7	9.1
4	11.3	10.8	11.0	13.2	10.8	12.4	---	---	---	9.1	8.6	8.9
5	10.8	9.2	10.5	13.2	11.2	12.5	---	---	---	9.2	8.1	8.5
6	10.9	10.5	10.7	13.2	11.6	12.6	11.5	11.4	11.4	8.9	7.8	8.1
7	10.7	10.2	10.5	13.0	11.9	12.3	11.7	11.2	11.5	8.0	7.2	7.7
8	11.2	10.0	10.6	13.0	11.8	12.3	11.6	10.9	11.3	7.9	7.3	7.6
9	11.2	9.9	10.7	13.0	11.7	12.3	11.2	10.7	11.1	7.9	7.2	7.6
10	11.2	9.7	10.6	12.4	11.1	12.2	11.1	10.5	11.0	9.0	7.0	7.8
11	11.2	9.7	10.5	12.8	10.9	11.9	11.2	10.4	10.9	9.0	7.5	7.9
12	11.2	9.7	10.4	11.8	10.8	11.4	11.2	10.4	10.7	8.9	7.4	8.0
13	11.1	9.4	10.1	---	---	---	11.1	9.1	10.3	9.1	7.5	8.3
14	---	---	---	10.9	10.4	10.7	10.2	8.8	9.7	9.2	7.9	8.6
15	12.9	11.2	10.8	11.0	10.4	10.7	9.7	9.0	9.4	9.0	8.0	8.6
16	12.9	11.3	11.9	11.6	11.0	11.4	9.2	8.5	8.8	9.1	7.7	8.5
17	13.0	11.3	12.1	11.7	11.3	11.5	9.1	8.1	8.4	9.8	7.6	8.9
18	12.9	11.2	11.8	11.6	10.9	11.4	9.0	7.9	8.3	9.2	8.2	8.8
19	12.4	11.2	11.7	11.7	11.3	11.5	9.0	7.1	8.5	9.3	8.1	8.6
20	11.9	11.1	11.6	11.9	11.5	11.7	9.1	6.8	8.1	9.1	6.8	8.1
21	12.9	11.3	11.8	12.2	11.7	12.0	9.0	6.9	8.3	9.2	6.9	8.1
22	13.2	11.5	12.1	12.8	10.8	11.9	9.2	8.1	8.6	9.0	6.8	7.8
23	12.8	11.8	12.1	12.9	10.9	11.5	9.1	8.0	8.4	7.3	6.6	6.9
24	12.9	10.8	11.8	12.0	10.9	11.5	8.4	7.8	8.1	7.0	5.1	6.1
25	---	---	---	12.9	10.9	12.1	8.2	7.6	7.9	5.8	3.7	4.7
26	---	---	---	13.0	10.8	12.2	8.4	7.6	7.8	---	---	---
27	---	---	---	13.0	10.8	12.0	9.1	7.4	8.1	6.8	4.7	5.9
28	---	---	---	12.8	10.8	11.6	10.0	8.3	8.7	7.3	4.6	5.9
29	---	---	---	12.0	10.5	11.5	9.5	9.0	9.2	7.3	4.7	6.3
30	---	---	---	11.8	10.4	11.3	9.5	9.2	9.4	6.6	4.5	6.1
31	---	---	---	11.2	9.4	10.3	---	---	---	8.8	4.6	5.7
MONTH	13.2	9.2	11.2	13.2	9.4	11.8	11.7	6.8	9.2	9.8	3.7	7.7

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	5.8	4.3	5.3	6.2	2.1	4.3	7.1	3.8	5.7	6.6	3.2	5.3
2	6.0	1.9	5.0	---	---	---	6.7	4.5	5.4	6.6	3.8	5.3
3	5.9	3.6	5.1	---	---	---	5.1	3.0	3.8	6.4	3.7	5.2
4	5.6	3.4	4.8	---	---	---	5.7	2.1	3.8	6.6	3.5	5.2
5	5.6	3.9	4.9	---	---	---	5.8	3.3	4.3	6.8	4.3	5.2
6	5.4	3.7	4.7	7.6	3.0	5.1	6.0	3.5	4.4	6.3	4.2	5.2
7	5.3	3.8	4.5	5.2	2.7	4.3	6.1	3.8	4.7	5.9	2.9	4.5
8	5.3	4.0	4.5	5.2	1.8	3.8	6.4	3.8	4.9	6.0	1.6	4.6
9	5.4	3.7	4.7	5.0	1.9	3.6	6.8	3.8	5.2	6.2	1.6	4.5
10	5.9	3.9	4.7	6.1	2.8	4.1	6.9	3.9	5.4	6.1	2.5	5.0
11	5.8	4.2	4.9	6.2	3.2	4.5	6.4	3.6	5.4	6.1	3.0	5.1
12	6.4	4.2	5.3	5.6	3.5	4.4	6.1	3.4	5.4	6.3	3.4	5.4
13	7.3	4.6	6.1	4.9	3.7	4.3	5.8	3.4	5.2	6.9	2.9	5.6
14	7.2	5.0	6.4	5.1	3.0	4.1	5.9	2.3	4.9	7.2	4.3	6.1
15	7.7	5.0	6.4	5.4	2.5	4.3	5.7	4.2	4.9	7.0	4.3	6.0
16	8.8	4.7	7.2	5.8	2.5	4.5	5.7	2.8	4.8	6.9	2.8	5.4
17	8.8	5.0	7.7	6.2	2.9	4.9	5.9	3.6	4.7	6.9	3.7	5.3
18	9.0	5.8	7.8	6.3	3.4	5.0	5.8	3.1	4.5	6.7	3.9	5.2
19	9.2	6.3	7.9	6.3	3.1	4.8	5.9	2.3	4.5	6.5	3.8	5.3
20	9.0	6.2	8.0	5.7	2.8	4.5	6.0	2.7	4.5	---	---	---
21	8.6	6.8	7.7	6.0	2.9	4.4	6.4	3.1	4.8	6.0	3.6	5.1
22	8.5	6.4	7.6	6.7	4.0	4.9	6.9	3.1	5.5	5.5	3.4	4.9
23	8.5	6.4	7.5	7.1	3.6	5.3	7.1	4.4	5.8	5.9	4.3	4.8
24	8.3	5.9	7.2	7.7	4.5	5.8	6.4	3.1	5.6	6.8	3.1	4.7
25	7.0	5.2	6.5	6.5	5.0	5.8	6.7	3.9	5.7	7.9	4.2	5.4
26	6.0	3.8	5.5	7.2	3.7	5.6	6.8	3.5	5.8	6.8	4.8	5.5
27	5.8	3.5	4.9	7.3	3.6	5.5	6.7	2.9	5.7	7.6	5.2	6.6
28	6.3	3.0	4.8	7.1	2.8	5.7	6.7	3.8	5.7	8.7	7.3	8.0
29	5.4	2.6	4.5	7.5	3.1	6.1	6.8	4.1	5.8	8.7	8.3	8.5
30	5.9	2.2	4.4	6.6	3.2	5.8	6.9	4.1	5.7	8.4	7.6	8.3
31	---	---	---	7.2	3.5	5.8	6.9	3.7	5.6	---	---	---
MONTH	9.2	1.9	5.9	7.7	1.8	4.9	7.1	2.1	5.1	8.7	1.6	5.6

01467041 PENNYPACK CREEK AT WELSH ROAD NEAR ABINGTON, PA

LOCATION.--Lat 40°07'14", long 75°04'21", Montgomery County, Hydrologic Unit 02040202, 300 ft (91 m) downstream of bridge on State Route 63, 0.3 mi (0.5 km) west of Huntingdon Valley, 0.7 mi (1.1 km) upstream from Meadow Brook, and 2.2 mi (3.5 km) east of Abington.

DRAINAGE AREA.--not available.

PERIOD OF RECORD.--November 1975 to current year.

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, OCTOBER 1976 TO JULY 1977

DATE	TIME	CODE FOR AGENCY COL-LECTING SAMPLE	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (JTU)	BIO-CHEM-ICAL OXYGEN DEMAND 5 DAY (MG/L)	HARD-NESS (CA,MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
OCT												
18...	1230	9813	500	11.0	4	--	118	0	0	28	11	138
NOV												
29...	1000	9813	580	9.0	3	--	125	--	0	28	13	124
DEC												
13...	0900	9813	490	5.0	6	--	116	0	0	30	10	108
JAN												
26...	1200	9813	700	2.0	4	--	140	0	0	27	18	148
FEB												
23...	0900	9813	600	5.0	4	--	134	0	0	27	16	120
MAR												
28...	1130	9813	390	9.5	5	1.7	102	0	0	27	8.5	66
APR												
12...	1230	9813	400	17.0	4	--	102	0	0	28	8.0	76
MAY												
19...	1000	9813	250	20.0	10	--	76	--	0	18	7.5	60
JUN												
07...	0930	9813	130	15.0	7	--	80	--	0	19	8.0	62
JUL												
13...	1330	9813	330	26.0	6	--	84	--	0	20	8.0	70

DATE	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	TOTAL FLUO-RIDE (F) (MG/L)	TOTAL FILT-RABLE RESIDUE (MG/L)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	TOTAL RESI-DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
OCT												
18...	54	4.0	.2	338	<5	--	2.0	.19	.62	5.6	470	.40
NOV												
29...	58	50	.1	262	10	272	2.9	.17	6.5	5.1	410	.10
DEC												
13...	50	50	.1	328	<5	--	4.6	.20	4.9	3.1	450	.17
JAN												
26...	52	100	.1	414	6	420	2.0	.15	10	5.4	370	.20
FEB												
23...	60	43	--	406	2	408	4.0	.40	6.0	3.7	450	--
MAR												
28...	38	42	.1	258	12	270	4.9	.37	1.2	1.6	400	.04
APR												
12...	42	43	.1	288	6	294	4.0	.39	1.4	1.6	330	<.01
MAY												
19...	28	28	.1	174	30	204	2.0	.35	.84	.78	1300	.25
JUN												
07...	24	29	.1	190	24	214	2.0	.37	2.6	1.8	940	.13
JUL												
13...	26	31	.1	208	18	--	3.8	.41	1.3	2.7	1260	.05

01467042 PENNYPACK CREEK AT PINE ROAD, PHILADELPHIA, PA

LOCATION.--Lat 40°05'23", long 75°04'10", Philadelphia County, Hydrologic Unit 02040202, on right bank 20 ft (6 m) below Pine Road, 300 ft (91 m) upstream from Stream "A" at north city limits of Philadelphia.

DRAINAGE AREA.--37.9 mi^2 (98.2 km^2).

PERIOD OF RECORD.--August 1964 to September 1970, July 1974 to *current year*.

GAGE.--Water-stage recorder. Datum of gage is 80.41 ft (24.509 m) above mean sea level. Prior to Feb. 26, 1976, at site 35 ft (11 m) upstream at same datum.

REMARKS.--Records fair except those for the period November 24 to March 9, which are poor.

AVERAGE DISCHARGE.--9 years (1964-1970, 1975-77), 56.5 ft^3/s (1.600 m^3/s), 20.26 in/yr (515 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,770 ft^3/s (107 m^3/s) Dec. 21, 1973, gage height, 10.02 ft (3.054 m), from rating curve extended above 720 ft^3/s (20.4 m^3/s) on basis of step-backwater analysis; minimum, 5.2 ft^3/s (0.15 m^3/s) July 26, 27, 1966, gage height, 2.47 ft (0.753 m).

EXTREMES OUTSIDE OF PERIOD OF RECORD.--Flood of Aug. 28, 1971 reached a stage of 11.08 ft (3.377 m), from floodmark, discharge, 5,160 ft^3/s (146 m^3/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft^3/s (28.3 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 24	Unknown	1,200	34	Unknown	
Mar. 22	1830	*2,280	64.6	*8.21	2.502
Apr. 5	0400	1,320	37.4	6.49	1.978
Sept. 24	0330	1,210	34.3	6.25	1.905
Sept. 25	0915	1,040	29.5	5.84	1.780

Minimum discharge, 9.8 ft^3/s (0.28 m^3/s) Dec. 31, Jan. 1, 2, 5, 6, 8, 9, gage height, 2.82 ft (0.860 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	99	22	15	12	15	30	40	39	40	16	212	43
2	24	18	14	12	16	29	112	39	57	15	120	25
3	47	16	13	12	18	28	66	39	24	14	59	19
4	26	16	13	13	17	150	59	42	22	14	28	17
5	18	17	13	12	16	100	585	109	21	16	23	17
6	16	16	16	12	15	40	92	52	48	25	70	60
7	15	16	174	14	15	35	70	39	32	50	33	35
8	15	17	36	13	17	33	64	35	23	35	23	23
9	136	18	21	13	25	32	57	40	122	15	23	22
10	24	19	19	196	45	31	54	36	34	14	29	22
11	15	19	19	108	70	30	51	34	23	13	26	21
12	15	19	20	30	100	28	49	33	21	150	40	21
13	15	19	20	20	60	158	48	33	20	25	54	19
14	14	19	18	18	38	130	44	32	20	16	52	19
15	15	20	18	22	31	44	44	30	33	15	26	19
16	15	21	18	18	25	40	41	30	21	14	24	19
17	15	20	18	16	23	36	40	30	20	14	34	34
18	16	21	17	15	21	88	40	34	20	16	26	20
19	16	21	17	15	20	44	40	52	20	15	20	23
20	148	20	21	14	25	40	39	30	46	18	19	154
21	88	20	36	14	24	42	38	29	38	15	19	23
22	20	22	17	13	27	770	38	28	19	14	172	20
23	16	20	17	13	25	146	36	28	18	13	24	23
24	16	18	18	15	200	73	59	27	17	13	52	266
25	24	16	15	23	300	60	79	27	16	26	33	272
26	44	16	18	21	40	54	167	26	17	20	22	29
27	19	18	17	19	30	51	77	24	16	14	20	27
28	17	17	17	17	35	48	51	24	77	13	20	35
29	17	35	16	16	---	48	66	23	79	13	20	19
30	16	20	14	15	---	44	41	22	18	19	21	17
31	122	---	12	15	---	42	---	24	---	15	46	---
TOTAL	1103	576	717	766	1293	2524	2287	1090	982	685	1390	1363
MEAN	35.6	19.2	23.1	24.7	46.2	81.4	76.2	35.2	32.7	22.1	44.8	45.4
MAX	148	35	174	196	300	770	585	109	122	150	212	272
MIN	14	16	12	12	15	28	36	22	16	13	19	17
CFSM	.94	.51	.61	.65	1.22	2.15	2.01	.93	.86	.58	1.18	1.20
IN.	1.08	.57	.70	.75	1.27	2.48	2.24	1.07	.96	.67	1.36	1.34

CAL YR 1976 TOTAL 19328 MEAN 52.8 MAX 570 MIN 12 CFSM 1.39 IN 18.97
WTR YR 1977 TOTAL 14776 MEAN 40.5 MAX 770 MIN 12 CFSM 1.07 IN 14.50

01467043 STREAM 'A' AT PHILADELPHIA, PA.

LOCATION.--Lat 40°05'27", long 75°03'50", Philadelphia County, Hydrologic Unit 02040202, on left bank 25 ft (8 m) upstream from concrete box culvert on Bloomfield Avenue and 600 ft (180 m) upstream from mouth in Philadelphia.

DRAINAGE AREA.--1.20 mi^2 (3.11 km^2).

PERIOD OF RECORD.--Annual maximums, water years 1965-1977. Discontinued as a crest-stage partial-record station; established as a continuous-record station Dec. 4, 1976. December 1976 to September 1977.

GAGE.--Water-stage recorder. Datum of gage is 82.58 ft (25.170 m) above mean sea level. Feb. 11, 1965 to Dec. 3, 1976, crest-stage gage at site 9 ft (3 m) downstream at same datum.

REMARKS.--Records fair except those for the period of Dec. 1 to Feb. 15, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 663 ft^3/s (18.8 m^3/s) July 13, 1975, gage height, 18.03 ft (5.496 m); no flow part of many days in January and February 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 50 ft^3/s (1.42 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 24	1845	68	1.93	11.69	3.563	Aug. 1	1745	*309	8.75	*14.74	4.493
Mar. 13	1500	78	2.21	11.86	3.615	Aug. 3	1440	62	1.76	11.58	3.530
Mar. 22	1415	97	2.75	12.19	3.716	Aug. 24	1620	64	1.81	11.62	3.542
Apr. 26	1545	60	1.70	11.54	3.517	Sept.20	Unknown	87	2.46	12.02	3.664
June 1	2335	112	3.17	12.43	3.789	Sept.24	0050	109	3.09	12.39	3.776
July 12	0840	112	3.17	12.43	3.789	Sept.25	0525	184	5.21	13.37	4.075

No flow part of many days in January and February.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			.20	.03	.02	.17	.45	.58	5.2	.51	19	.34
2			.15	.02	.03	.17	3.0	.58	3.0	.45	1.6	.22
3			.15	.02	.30	.14	.58	.51	.75	.39	5.4	.20
4			.20	.01	.15	5.8	2.8	.86	.66	.39	.66	.19
5			.25	.01	.10	.86	6.8	2.2	.58	.45	.45	.45
6			.25	.01	.06	.29	.86	.58	2.7	1.6	1.6	3.0
7			5.8	.08	.04	.25	.75	.51	.80	1.6	.45	.70
8			.22	.25	.05	.22	.66	.51	.60	.75	.29	.35
9			.14	.01	.20	.22	.66	.86	8.0	.45	.29	.20
10			.14	8.1	1.0	.19	.58	.58	1.5	.39	1.0	.40
11			.12	.86	2.5	.17	.58	.45	1.0	.39	.51	.30
12			.25	.12	3.0	.17	.58	.45	.80	10	.39	.25
13			.15	.03	1.5	9.7	.51	.45	.70	.58	1.8	.22
14			.14	.01	.70	1.2	.58	.45	.80	.39	2.8	.21
15			.20	.03	.40	.39	.51	.39	1.0	.39	.51	.20
16			.14	.01	.05	.29	.51	.39	.70	.34	.34	.35
17			.13	.01	.03	.25	.51	.39	.60	.29	.58	1.5
18			.15	.01	.05	2.8	.66	.86	.55	.29	.39	.25
19			.13	.01	.02	.34	.66	.51	.50	.51	.22	1.0
20			.70	.01	1.8	.58	.58	.39	1.5	.39	.22	7.0
21			.20	.01	.39	.34	.66	.34	.60	.29	.19	.25
22			.17	.01	.04	15	.51	.29	.50	.22	4.4	.22
23			.14	.01	2.2	1.0	.51	.25	.45	.19	.34	.75
24			.12	.03	16	.58	3.0	.25	.51	.22	4.4	7.0
25			.17	.35	8.1	.51	.86	.22	.58	1.2	.51	10
26			.75	.15	.39	.45	6.3	.25	.51	.34	.29	.51
27			.17	.07	.34	.45	.86	.22	.45	.22	.29	1.2
28			.19	.04	.29	.45	1.6	.22	4.8	.19	.29	.51
29			.14	.03	---	.45	.75	.19	1.8	.19	.25	.29
30			.09	.02	---	.45	.66	.19	.58	.86	.25	.25
31			.05	.02	---	.45	---	.22	---	.39	.75	---
TOTAL			11.80	10.38	39.75	44.33	38.53	15.14	42.72	24.86	50.46	38.31
MEAN			.38	.33	1.42	1.43	1.28	.49	1.42	.80	1.63	1.28
MAX			5.8	8.1	16	15	6.8	2.2	8.0	10	19	10
MIN			.05	.01	.02	.14	.45	.19	.45	.19	.19	.19
CFSM			.32	.28	1.18	1.19	1.07	.41	1.18	.67	1.36	1.07
IN.			.37	.32	1.23	1.37	1.19	.47	1.32	.77	1.56	1.19

01467048 PENNYPACK CREEK AT LOWER RHAWN STREET BRIDGE, PHILADELPHIA, PA

LOCATION.--Lat 49°03'00", long 75°01'59", Philadelphia County, Hydrologic Unit 02040202, on left bank at downstream side of footbridge pier, 400 ft (122 m) downstream from Rhawn Street Bridge, 0.8 mi (1.3 km) upstream from Wooden Bridge Run, in Philadelphia.

DRAINAGE AREA.--49.8 mi² (129 km²).

PERIOD OF RECORD.--June 1965 to September 1970, July 1974 to current year.

GAGE.--Water-stage recorder. Datum of gage is 21.27 ft (6.483 m) above mean sea level.

REMARKS.--Records good except those for the period Jan. 18 to Feb. 9, which are poor.

AVERAGE DISCHARGE.--8 years (1965-1970, 1975-77), 73.8 ft³/s (2.090 m³/s), 20.12 in/yr (511 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,160 ft³/s (146 m³/s) Aug. 27, 1967, gage height, 10.54 ft (3.213 m); minimum, 6.0 ft³/s (0.17 m³/s) Oct. 11, 1966, gage height, 1.97 ft (0.600 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,250 ft³/s (35.4 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 24	2400	1,420	40.2	5.35	1.631	Sept. 19	2245	1,270	36.0	5.11	1.558
Mar. 22	2145	2,280	64.6	6.47	1.972	Sept. 24	0445	1,270	36.0	5.12	1.561
Aug. 1	1815	*3,540	100	*7.84	2.390	Sept. 25	0545	1,480	41.9	5.45	1.661

Minimum discharge, 14 ft³/s (0.40 m³/s) Dec. 31, Jan. 1, 6, 8, July 25, gage height, 2.09 ft (0.637 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	159	39	20	16	20	35	48	45	65	22	587	78
2	32	28	20	16	21	32	164	45	168	20	193	25
3	86	26	19	17	23	30	113	46	27	18	177	21
4	35	26	19	17	22	173	86	58	23	18	37	19
5	22	25	19	17	21	150	686	160	23	20	23	18
6	20	27	18	16	20	46	164	86	80	28	106	89
7	20	24	281	18	20	38	96	46	51	63	72	83
8	21	24	53	17	22	35	83	42	27	40	23	24
9	246	24	25	16	30	33	70	53	272	21	21	22
10	47	24	22	260	58	32	65	45	58	20	61	22
11	23	24	22	156	112	31	61	39	30	18	38	20
12	21	24	22	40	202	30	61	37	26	226	23	19
13	21	25	22	25	141	272	56	37	25	35	103	20
14	20	24	20	28	70	209	53	36	26	23	160	19
15	19	24	19	28	39	56	49	35	83	20	43	20
16	21	25	21	24	35	44	48	33	26	19	24	19
17	22	25	21	22	30	39	45	35	23	18	43	46
18	21	25	20	20	26	147	45	54	23	18	45	25
19	21	27	20	19	23	60	46	75	23	18	22	76
20	198	24	28	18	33	45	45	33	36	24	20	244
21	190	24	48	18	31	50	45	31	65	19	18	29
22	29	24	21	18	36	898	45	29	24	17	302	23
23	23	26	20	18	25	280	43	28	21	15	31	33
24	25	23	20	20	223	103	86	28	20	15	121	396
25	35	23	19	30	399	78	121	27	32	53	56	442
26	84	22	25	24	52	65	285	27	22	38	25	56
27	28	23	22	22	40	61	132	26	20	18	23	54
28	23	23	20	21	44	58	78	26	110	17	21	80
29	22	49	19	20	---	58	99	24	168	16	20	32
30	22	29	18	20	---	53	48	23	26	23	21	28
31	218	---	17	20	---	49	---	24	---	20	80	---
TOTAL	1774	780	960	1021	1818	3290	3066	1333	1623	940	2539	2082
MEAN	57.2	26.0	31.0	32.9	64.9	106	102	43.0	54.1	30.3	81.9	69.4
MAX	246	49	281	260	399	898	686	160	272	226	587	442
MIN	19	22	17	16	20	30	43	23	20	15	18	18
CFSM	1.15	.52	.62	.66	1.30	2.13	2.05	.86	1.09	.61	1.65	1.39
IN.	1.33	.58	.72	.76	1.36	2.46	2.29	1.00	1.21	.70	1.90	1.56

CAL YR 1976 TOTAL 23732 MEAN 64.8 MAX 674 MIN 15 CFSM 1.30 IN 17.73
WTR YR 1977 TOTAL 21226 MEAN 58.2 MAX 898 MIN 15 CFSM 1.17 IN 15.86

01467049 WOODEN BRIDGE RUN AT GRANT AVENUE, PHILADELPHIA, PA

LOCATION.--Lat 40°04'36", long 75°01'19", Philadelphia County, Hydrologic Unit 02040202, on left bank 20 ft (6 m) downstream from Grant Avenue Bridge in northeast Philadelphia.

DRAINAGE AREA.--1.06 mi² (2.75 km²).

PERIOD OF RECORD.--October 1973 to current year.

GAGE.--Water-stage recorder, concrete control, and crest-stage gage. Altitude of gage is 80 ft (24.4 m), from topographic map.

REMARKS.--Records fair except those for the period Nov. 20 to Jan. 22, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 818 ft³/s (23.2 m³/s) Aug. 1, 1977, gage height, 8.15 ft (2.484 m); minimum, 0.06 ft³/s (0.002 m³/s) Sept. 29, 1975, Feb. 7, 1977; minimum gage height, 1.59 ft (0.485 m) Mar. 31, Apr. 1, 13, 1977, caused by washout of control.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 150 ft³/s (4.25 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 24	1840	179	5.07	4.78	1.457
Mar. 13	1450	182	5.15	4.81	1.466
Mar. 22	1400	232	6.57	5.19	1.582
June 28	1950	169	4.79	4.70	1.433
July 12	0840	159	4.50	4.62	1.408
Aug. 1	1735	*818	23.2	*8.15	2.484
Aug. 3	1440	584	16.5	7.16	2.182
Aug. 6	1730	175	4.96	4.75	1.448
Aug. 24	1640	339	9.60	5.88	1.792
Sept.24	0105	286	8.10	5.56	1.695
Sept.25	0525	350	9.91	5.95	1.814

Minimum discharge, 0.06 ft³/s (0.002 m³/s) Feb. 7; minimum gage height, 1.59 ft (0.485 m) Mar. 31, April 1, 13, caused by washout of control.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.9	.16	.12	.09	.08	.12	.41	.22	8.0	.17	45	.65
2	.60	.12	.12	.10	.12	.12	10	.22	.40	.14	1.1	.21
3	11	.13	.11	.11	.09	.12	.59	.22	.18	.14	18	.20
4	.50	.13	.10	.12	.09	11	15	1.7	.18	.14	.28	.19
5	.20	.12	.10	.14	.09	2.0	15	4.0	.19	.15	.22	.18
6	.15	.12	.15	.25	.08	.20	.65	.26	4.0	3.5	4.2	3.1
7	.14	.12	12	.38	.08	.18	.59	.22	.54	1.7	.25	.22
8	.14	.13	.21	.11	.11	.15	.59	.22	.21	2.2	.23	.19
9	15	.13	.16	.10	.17	.16	.59	1.1	16	.14	.19	.20
10	.19	.13	.16	17	2.3	.15	.59	.22	.38	2.0	3.8	.23
11	.14	.13	.22	.19	2.4	.14	.49	.24	.17	.14	.26	.20
12	.16	.13	.36	.12	1.8	.13	.45	.20	.16	8.3	.96	.19
13	.13	.14	.20	.11	.49	17	.35	.21	.17	.19	6.5	.23
14	.13	.16	.13	.11	.24	1.6	.19	.21	.87	.15	7.1	.28
15	.14	.15	.12	.25	.27	.96	.22	.21	3.3	.18	.27	.28
16	.14	.15	.13	.13	.23	.79	.22	.21	.18	.17	.21	.17
17	.20	.14	.13	.10	.21	.79	.22	.21	.18	.28	1.5	2.2
18	.15	.14	.12	.10	.20	12	.22	3.1	.17	.16	.20	.17
19	.14	.15	.11	.10	.19	.96	.21	.31	.17	.18	.18	4.9
20	19	.14	1.8	.10	1.9	1.6	.21	.22	3.1	1.6	.17	4.6
21	1.9	.13	.29	.10	.19	.79	.21	.21	.19	.16	.16	.19
22	.20	.14	.10	.10	.18	27	.21	.23	.17	.16	12	.18
23	.18	.15	.15	.10	.20	1.2	.20	.21	.18	.14	.21	2.4
24	1.5	.14	.18	.10	15	.79	4.2	.20	.19	.12	11	10
25	.71	.13	.22	.18	1.7	.72	.54	.20	1.6	4.9	.41	16
26	4.7	.12	.79	.10	.18	.79	16	.19	.18	.19	.20	.59
27	.22	.13	.14	.09	.19	.72	.72	.20	.17	.12	.19	4.0
28	.23	.15	.14	.09	.15	.54	3.8	.19	12	.12	.18	1.2
29	.25	2.7	.15	.08	---	.45	.54	.18	2.0	.12	.18	.22
30	.26	.13	.11	.08	---	.41	.23	.19	.17	1.4	.18	.20
31	9.7	---	.10	.08	---	.41	---	.19	---	.13	5.1	---
TOTAL	73.00	6.64	18.92	20.81	28.93	83.99	73.44	15.69	55.40	29.19	120.43	53.57
MEAN	2.35	.22	.61	.67	1.03	2.71	2.45	.51	1.85	.94	3.88	1.79
MAX	19	2.7	12	17	15	27	16	4.0	16	8.3	45	16
MIN	.13	.12	.10	.08	.08	.12	.19	.18	.16	.12	.16	.17
CFSM	2.22	.21	.58	.63	.97	2.56	2.31	.48	1.75	.89	3.66	1.69
IN.	2.56	.23	.66	.73	1.01	2.94	2.57	.55	1.94	1.02	4.22	1.88

CAL YR 1976 TOTAL 388.25 MEAN 1.06 MAX 25 MIN .09 CFSM 1.00 IN 13.61
WTR YR 1977 TOTAL 580.01 MEAN 1.59 MAX 45 MIN .08 CFSM 1.50 IN 20.35

01467050 WOODEN BRIDGE RUN AT PHILADELPHIA, PA

LOCATION.--Lat 40°03'19", long 75°01'22", Philadelphia County, Hydrologic Unit 02040203, on left bank 200 ft (61 m) upstream from Penn Central Railroad bridge, 600 ft (183 m) southeast of Holme Avenue and 1,500 ft (457 m) upstream from mouth in Philadelphia.

DRAINAGE AREA.--3.35 mi^2 (8.68 km^2).

PERIOD OF RECORD.--June 1965 to September 1970, October 1974 to current year.

REVISED RECORDS.--WDR PA-76-1: 1974.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 29.69 ft (9.050 m) above mean sea level. Prior to July 6, 1966 water-stage recorder at site 300 ft (91 m) downstream at same datum.

REMARKS.--Records good except those for the period Dec. 30 to Feb. 6, which are poor.

AVERAGE DISCHARGE.--8 years (1965-70, 1975-77), 5.00 ft^3/s (0.142 m^3/s), 20.27 in/yr (515 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,860 ft^3/s (52.7 m^3/s) Aug. 27, 1967, gage height, 12.20 ft (3.719 m), from rating curve extended above 300 ft^3/s (8.5 m^3/s) on basis of flow through culvert at gage height 11.96 ft (3.645 m); minimum, 0.1 ft^3/s (0.003 m^3/s) Aug. 14, 15, 22, 1966, gage height, 1.44 ft (0.439 m) at former site, 3.28 ft (1.000 m) at present site.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 300 ft^3/s (8.50 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 24	1945	329	9.32	6.15	1.875
Mar. 22	1500	711	20.1	7.66	2.335
June 2	0015	325	9.20	6.13	1.868
June 28	2100	410	11.6	6.50	1.981
Aug. 1	1900	*1,530	43.3	*/10.76	3.280
Aug. 3	1545	736	20.8	7.75	2.362
Aug. 6	1815	322	9.12	6.12	1.865
Aug. 14	0015	539	15.3	7.01	2.137
Aug. 22	0430	379	10.7	6.37	1.942
Aug. 24	1730	453	12.8	6.68	2.036
Aug. 31	1900	305	8.64	6.04	1.841
Sept.19	2315	427	12.1	6.57	2.003
Sept.24	0145	471	13.3	6.75	2.057
Sept.25	0615	650	18.4	7.44	2.268

Minimum discharge, 0.34 ft^3/s (0.010 m^3/s) Sept. 11, 12, 19, gage height, 3.11 ft (0.948 m).

/ From peak stage indicator.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.0	2.1	.65	.60	.74	1.2	1.6	1.7	3.8	.96	201	2.2
2	2.3	1.1	.65	.55	.88	1.1	17	1.6	17	.96	4.0	.75
3	28	.96	.55	.52	.80	1.1	3.8	1.5	1.2	.75	63	.65
4	2.3	.88	.55	.50	.76	20	13	4.1	1.1	.75	2.3	.47
5	.81	.81	.51	.60	.72	7.5	54	7.8	.96	.88	.75	.47
6	.70	.75	.60	.70	.70	1.9	3.8	2.4	6.5	3.7	9.3	5.2
7	.65	.75	32	.95	.65	1.5	2.3	1.4	2.7	5.6	1.6	1.1
8	.65	.75	1.9	.88	.96	1.4	2.1	1.2	1.1	4.6	.81	.51
9	39	.75	.96	.65	1.4	1.4	1.7	2.5	35	.96	.60	.55
10	2.7	.81	.81	44	7.0	1.3	1.5	1.8	3.2	1.5	5.8	.60
11	.88	.70	.75	9.0	8.4	1.2	1.5	1.4	1.3	.81	1.6	.40
12	.88	.75	1.1	1.2	5.0	.96	1.6	1.2	.96	13	1.2	.40
13	.88	.75	.75	.90	4.3	36	1.5	1.2	.96	1.8	14	.47
14	.88	.70	.65	.70	2.2	8.1	1.5	1.1	1.2	.81	47	.47
15	1.1	.70	.70	1.5	1.7	2.2	1.4	.96	9.7	.70	2.1	.47
16	.96	.70	.75	1.2	1.3	1.7	1.4	1.1	1.3	.70	.88	.47
17	1.2	.75	.75	.70	1.1	1.5	1.2	1.1	1.1	.70	2.8	2.4
18	1.1	.75	.65	.60	.96	12	1.1	5.0	.88	.81	.81	.40
19	1.1	.81	.60	.55	.96	2.7	1.2	2.8	.81	.65	.60	18
20	53	.65	3.8	.52	2.5	2.4	1.1	1.3	2.9	2.7	.51	8.4
21	7.3	.60	2.2	.50	1.3	2.3	1.1	1.4	2.1	.70	.47	.70
22	1.2	.60	.75	.47	.81	122	1.2	1.2	.88	.65	43	.51
23	.88	.65	.70	.45	.81	6.3	1.4	1.1	.96	.55	1.1	2.5
24	1.9	.60	.65	.65	36	2.7	4.8	1.1	.88	.44	32	37
25	2.8	.55	.60	1.2	14	2.1	3.7	1.1	4.5	8.1	2.8	75
26	7.8	.51	2.4	1.3	2.2	1.9	29	.88	1.7	1.9	.96	1.7
27	1.2	.51	.96	.81	1.7	1.7	5.0	.88	.88	.65	.65	4.3
28	.88	.60	.65	.72	1.9	1.7	5.8	.81	34	.55	.60	2.8
29	1.4	5.0	.70	.68	---	1.8	4.3	.75	8.7	.55	.60	.75
30	.75	1.1	.75	.65	---	1.7	2.1	.81	1.3	1.5	.65	.60
31	27	---	.70	.65	---	1.6	---	.81	---	.60	11	---
TOTAL	201.20	27.64	60.74	74.90	101.75	252.96	172.7	54.00	149.57	59.53	454.49	170.24
MEAN	6.49	.92	1.96	2.42	3.63	8.16	5.76	1.74	4.99	1.92	14.7	5.67
MAX	53	5.0	32	44	36	122	54	7.8	35	13	201	75
MIN	.65	.51	.51	.45	.65	.96	1.1	.75	.81	.44	.47	.40
CFSM	1.94	.28	.59	.72	1.08	2.44	1.72	.52	1.49	.57	4.39	1.69
IN.	2.23	.31	.67	.83	1.13	2.81	1.92	.60	1.66	.66	5.05	1.89

AL YR 1976 TOTAL 1368.18 MEAN 3.74 MAX 78 MIN .39 CFSM 1.12 IN 15.19
YR 1977 TOTAL 1779.72 MEAN 4.88 MAX 201 MIN .40 CFSM 1.46 IN 19.76

01467053 PENNYPACK CREEK AT FRANKFORD AVENUE, PHILADELPHIA, PA

LOCATION.--Lat 40°02'38", long 75°01'15", Philadelphia County, Hydrologic Unit 02040202, 210 ft (64 m) upstream from bridge on Frankford Avenue in Pennypack Park, Philadelphia.

DRAINAGE AREA.--not available.

PERIOD OF RECORD.--November 1975 to current year.

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, OCTOBER 1976 TO JULY 1977

DATE	TIME	CODE FOR AGENCY COL-LECTING SAMPLE	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (JTU)	HARD-NESS (CA,MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)
OCT 19...	1300	9813	400	11.0	3	118	0	0	32	9.0	90	50
NOV 30...	1130	9813	380	3.0	4	108	0	0	25	11	82	44
DEC 13...	1300	9813	400	3.0	4	105	0	0	29	7.7	82	32
JAN 26...	1300	9813	900	1.0	7	128	0	0	32	11	100	42
FEB 23...	1200	9813	500	2.0	3	110	0	0	29	9.0	90	48
MAR 14...	1230	9813	250	12.0	75	55	0	--	16	3.2	42	24
APR 12...	1200	9813	320	16.0	3	98	0	0	25	8.5	66	38
MAY 19...	1100	9813	400	20.0	3	102	--	0	28	8.0	106	36
JUN 07...	1030	9813	130	15.0	4	84	--	0	22	7.0	64	28
JUL 13...	1200	9813	170	24.0	35	45	--	0	12	3.2	48	11

DATE	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	TOTAL FLUO-RIDE (F) (MG/L)	TOTAL FILT-RABLE RESIDUE (MG/L)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	TOTAL RESI-DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
OCT 19...	48	1.0	310	<5	--	4.3	.24	.88	2.3	350	.06
NOV 30...	39	.1	458	6	464	4.3	.08	2.1	7.1	400	.07
DEC 13...	44	.2	274	<5	--	3.8	.06	1.6	1.9	370	.11
JAN 26...	189	.1	514	6	520	3.0	.07	5.6	2.7	360	.28
FEB 23...	48	.1	--	2	348	4.2	.15	3.2	1.8	380	.15
MAR 14...	30	.1	184	114	298	2.1	.09	.49	.64	7400	<.01
APR 12...	37	.1	242	2	244	4.2	.15	.33	.54	310	<.01
MAY 19...	50	.1	264	16	280	3.2	.28	.45	.99	570	.15
JUN 07...	31	.1	1210	16	1226	2.8	.19	.57	2.1	790	.16
JUL 13...	17	.1	122	42	--	2.1	.10	.28	.60	3160	.06

01467083 TACONY CREEK NEAR JENKINTOWN, PA

LOCATION.--Lat 40°05'08", long 75°08'08", Montgomery County, Hydrologic Unit 02040202, on right bank 700 ft (213 m) downstream from State Highway 73 (Washington Lane) and 0.5 mi (0.8 km) south of Jenkintown Railroad Station.

DRAINAGE AREA.--5.25 mi^2 (13.6 km^2).

PERIOD OF RECORD.--October 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 200 ft (61 m), from topographic map.

REMARKS.--Records fair except those for the period Dec. 30 to Feb. 8, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,560 ft^3/s (72.5 m^3/s) Aug. 23, 1974, gage height, 7.54 ft (2.298 m), from rating curve extended above 150 ft^3/s (4.25 m^3/s) on basis of slope-area measurement of peak flow; minimum recorded, 1.6 ft^3/s (0.045 m^3/s) Sept. 13, 15, 1976, gage height, 0.65 ft (0.198 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 400 ft^3/s (11.3 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Mar. 22	1400	792	22.4	3.93	1.198	Sept. 6	1800	491	13.9	3.29	1.003
June 20	1500	467	13.2	3.23	0.985	Sept. 20	0200	710	20.1	3.77	1.149
June 28	1930	459	13.0	3.21	0.978	Sept. 24	0045	471	13.3	3.24	0.988
July 12	0845	715	20.2	3.78	1.152	Sept. 25	0530	*1,020	28.9	*4.39	1.338
Aug. 22	0345	567	16.1	3.46	1.055						

Minimum discharge, 2.0 ft^3/s (0.057 m^3/s) Dec. 30, Sept. 18, 19, gage height, 0.66 ft (0.201 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	4.8	3.7	2.4	2.5	4.2	6.6	4.8	13	2.9	14	3.9
2	4.3	4.7	3.6	2.4	2.4	4.1	22	5.7	7.2	2.8	2.8	2.7
3	13	4.3	3.9	2.4	2.4	3.8	7.5	5.2	3.2	2.4	13	2.7
4	3.0	5.1	3.8	2.6	2.5	27	22	10	2.9	2.4	2.5	2.4
5	2.8	5.1	3.4	2.6	3.0	8.8	50	20	2.9	2.6	2.5	2.4
6	2.8	4.5	3.6	2.6	2.6	5.3	10	6.3	13	7.3	12	19
7	2.6	4.9	37	2.8	2.5	5.1	8.2	5.2	4.9	7.8	2.4	2.7
8	2.8	5.4	3.9	2.8	2.5	4.6	7.7	4.8	3.3	4.8	2.1	2.3
9	31	5.3	3.0	2.4	3.1	4.3	7.1	6.8	25	2.8	2.3	2.2
10	3.6	6.2	3.1	37	6.5	4.5	6.5	5.2	4.6	2.5	13	2.5
11	3.1	6.0	2.8	10	12	4.1	6.2	5.3	3.3	2.6	2.7	2.1
12	3.5	6.2	3.6	3.8	8.4	3.7	6.3	5.1	3.0	31	2.4	2.1
13	3.5	5.7	3.0	3.5	7.5	40	6.1	5.3	3.1	3.0	7.7	2.3
14	4.1	5.7	2.9	3.5	3.8	10	6.0	4.9	4.7	2.6	14	2.4
15	4.6	6.1	3.2	3.1	3.2	6.2	5.8	5.0	13	2.7	2.5	2.3
16	4.1	5.5	3.1	2.8	3.0	5.8	5.9	5.6	3.2	2.5	2.4	2.6
17	4.9	5.7	2.9	2.5	3.1	5.3	5.8	4.7	3.3	2.5	6.1	5.5
18	4.8	5.7	2.8	2.5	3.3	18	5.4	8.3	3.2	2.6	2.5	2.2
19	5.7	6.7	2.7	2.5	3.1	6.1	5.8	4.6	2.8	2.4	2.4	7.9
20	42	5.9	7.9	2.5	5.1	7.7	6.1	4.4	19	2.6	2.3	39
21	7.5	5.7	4.1	2.5	2.9	5.3	6.2	3.8	3.5	2.5	2.2	2.4
22	3.7	6.5	2.7	2.5	3.2	111	6.7	3.4	3.0	2.4	35	2.6
23	3.6	6.1	2.7	2.5	3.4	13	7.0	3.5	2.9	2.4	2.5	4.2
24	6.1	6.4	2.5	2.5	43	9.1	18	3.7	3.1	2.4	9.9	28
25	5.5	5.8	2.4	3.1	11	8.3	7.3	3.8	2.9	10	2.8	57
26	12	5.6	4.0	2.6	5.4	7.7	29	4.0	2.6	2.6	2.4	3.7
27	3.8	6.4	2.7	2.6	5.1	6.9	7.3	3.5	2.6	2.4	2.6	9.6
28	4.8	6.0	2.5	2.6	5.8	6.9	13	3.0	33	2.4	2.3	4.2
29	4.5	14	2.5	2.6	---	6.9	7.1	2.9	7.1	2.3	2.2	3.2
30	5.1	3.6	2.5	2.5	---	6.5	5.6	2.8	2.9	5.3	2.2	3.0
31	27	---	2.4	2.5	---	6.5	---	3.1	---	2.3	9.8	---
TOTAL	240.8	175.6	134.9	125.2	162.3	366.7	314.2	164.7	202.2	129.8	185.5	229.1
MEAN	7.77	5.85	4.35	4.04	5.80	11.8	10.5	5.31	6.74	4.19	5.98	7.64
MAX	42	14	37	37	43	111	50	20	33	31	35	57
MIN	2.6	3.6	2.4	2.4	2.4	3.7	5.4	2.8	2.6	2.3	2.1	2.1
CFSM	1.48	1.11	.83	.77	1.11	2.25	2.00	1.01	1.28	.80	1.14	1.46
IN.	1.71	1.24	.96	.89	1.15	2.60	2.23	1.17	1.43	.92	1.31	1.62

CAL YR 1976 TOTAL 2555.2 MEAN 6.98 MAX 78 MIN 1.6 CFSM 1.33 IN 18.10
WTR YR 1977 TOTAL 2431.0 MEAN 6.66 MAX 111 MIN 2.1 CFSM 1.27 IN 17.22

01467084 ROCK CREEK ABOVE CURTIS ARBORETUM NEAR PHILADELPHIA, PA

LOCATION.--Lat 40°04'54", long 75°09'03", Montgomery County, Hydrologic Unit 02040203, on right bank 60 ft (18 m) upstream from stone arch bridge, 1,600 ft (488 m) upstream from Washington Lane, Cheltenham Township and about 1.2 mi (1.9 km) upstream from mouth.

DRAINAGE AREA.--1.15 mi² (2.98 km²).

PERIOD OF RECORD.--May 1971 to current year.

REVISED RECORDS.--WDR PA-75: 1971(M), 1973(P), 1974(P).

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 245 ft (75 m), from topographic map.

REMARKS.--Records fair except those for the period Dec. 30 to Feb. 10, which are poor.

AVERAGE DISCHARGE.--6 years, 2.41 ft³/s (0.068 m³/s), 28.50 in/yr (724 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 796 ft³/s (22.5 m³/s) Aug. 23, 1974, gage height, 6.56 ft (1.999 m), from rating curve extended above 130 ft³/s (3.7 m³/s); minimum, 0.24 ft³/s (0.007 m³/s) June 20, 1976; minimum gage height, 2.07 ft (0.631 m) Apr. 24, 1976.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 250 ft³/s (7.08 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 22	1340	272	7.70	4.19	1.277
June 1	2250	308	8.72	4.33	1.320
June 28	1920	357	10.1	4.54	1.384
July 8	0055	268	7.59	4.17	1.271
July 12	0825	520	14.7	5.25	1.600
Aug. 1	1615	295	8.35	4.28	1.305
Aug. 3	0935	260	7.36	4.14	1.262
Aug. 22	Unknown	Unknown		Unknown	
Sept. 6	1800	302	8.55	4.31	1.314
Sept.24	0050	*555	15.7	*5.40	1.646
Sept.25	0505	422	12.0	4.82	1.469

Minimum discharge, 0.41 ft³/s (0.012 m³/s) Sept. 16, gage height, 2.33 ft (0.710 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.6	.70	.58	.52	.50	.71	.79	.96	7.2	.77	8.0	1.2
2	1.1	.70	.59	.52	.50	.68	7.6	1.1	1.6	.71	.89	.64
3	3.4	.71	.64	.52	.50	.67	1.2	1.1	.71	.66	5.5	.71
4	.87	.87	.64	.58	.54	8.0	8.8	2.8	.64	.62	.80	.52
5	.70	.81	.64	.58	.60	1.4	13	3.2	.64	.65	.75	.58
6	.70	.72	.64	.58	.55	.79	1.4	1.1	4.4	5.4	3.5	8.0
7	.66	.71	9.6	.58	.52	.71	1.2	.96	1.3	2.7	.70	.79
8	.65	.71	.71	.58	.50	.71	1.2	.87	.64	5.7	.60	.58
9	11	.71	.71	.52	.70	.71	1.1	1.4	9.6	.87	1.0	.64
10	.71	.71	.64	15	1.5	.71	1.1	.96	1.3	.80	4.0	.71
11	.58	.71	.64	.94	3.2	.71	1.1	.87	.87	.78	.80	.58
12	.58	.64	.79	.80	2.0	.79	.96	.79	.71	13	.70	.64
13	.46	.64	.58	.75	1.6	15	1.3	.71	.64	.89	2.0	.58
14	.41	.71	.52	.91	.86	1.4	.87	.79	1.1	.89	4.0	.46
15	.41	.71	.58	1.0	.75	.79	.96	.71	3.9	.97	.70	.46
16	.52	.71	.58	.71	.69	.79	.90	.64	.71	1.1	.65	.46
17	.64	.71	.58	.62	.66	.79	.87	.64	.71	.71	1.5	1.8
18	.64	.71	.58	.60	.79	5.0	.87	3.7	.79	.90	.70	.64
19	.58	.64	.58	.59	.63	.87	.87	1.1	.64	.72	.65	7.2
20	15	.64	2.1	.59	1.2	1.3	.87	.79	5.0	.79	.60	8.8
21	1.4	.64	.79	.59	.61	.79	.96	.79	.79	.69	.60	.58
22	.65	.65	.64	.58	.59	34	.96	.71	.64	.69	10	.71
23	.61	.68	.58	.57	.64	1.8	.87	.64	.58	.75	.80	2.1
24	1.2	.65	.52	.60	16	1.4	4.2	.64	.52	.74	3.0	15
25	1.1	.67	.52	.70	1.7	1.3	1.4	.64	.58	3.1	.70	18
26	3.2	.67	.87	.61	.89	1.2	11	.64	.58	.78	.60	1.2
27	.59	.68	.46	.57	1.2	1.2	1.4	.58	.52	.65	.70	3.7
28	.61	.69	.52	.55	.94	1.2	3.0	.64	19	.64	.53	1.4
29	.59	2.8	.52	.54	---	1.2	1.3	.64	1.7	.62	.52	.79
30	.58	.62	.52	.52	---	.96	.96	.64	.85	.73	.52	.71
31	8.6	---	.52	.51	---	.96	---	.58	---	.65	8.4	---
TOTAL	62.34	22.92	29.38	33.83	41.36	88.54	73.01	32.33	68.86	49.67	64.41	80.18
MEAN	2.01	.76	.95	1.09	1.48	2.86	2.43	1.04	2.30	1.60	2.08	2.67
MAX	15	2.8	9.6	15	16	34	13	3.7	19	13	10	18
MIN	.41	.62	.46	.51	.50	.67	.79	.58	.52	.62	.52	.46
CFSM	1.75	.66	.83	.95	1.29	2.49	2.11	.90	2.00	1.39	1.81	2.32
IN.	2.01	.74	.95	1.09	1.34	2.86	2.36	1.04	2.23	1.61	2.08	2.59

CAL YR 1976 TOTAL 629.50 MEAN 1.72 MAX 28 MIN .41 CFSM 1.50 IN 20.35
WTR YR 1977 TOTAL 646.83 MEAN 1.77 MAX 34 MIN .41 CFSM 1.54 IN 20.91

01467085 JENKINTOWN CREEK AT ELKINS PARK, PA

LOCATION.--Lat 40°04'45", long 75°06'36", Montgomery County, Hydrologic Unit 02040202, on right bank 20 ft (6 m) downstream from Cedar Road bridge, 0.5 mi (0.8 km) east of Elkins Park, and 1 mi (1.6 km) west of Rockledge.

DRAINAGE AREA.--1.17 mi^2 (3.03 km^2).

PERIOD OF RECORD.--October 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 180 ft (55 m), from topographic map.

REMARKS.--Records fair except those for the periods Nov. 8 to Dec. 7 and Jan. 1 to Feb. 21, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 315 ft^3/s (8.92 m^3/s) Jan. 27, 1976, gage height, 3.35 ft (1.021 m), from magnet; minimum, 0.06 ft^3/s (0.002 m^3/s) Aug. 21, 1976, July 19, 1977; minimum gage height, 1.14 ft (0.347 m) July 19, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 80 ft^3/s (2.27 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Mar. 22	1400	148	4.19	2.70	0.823	Aug. 10	1750	114	3.23	2.52	0.768
June 28	1930	91	2.58	2.38	0.725	Aug. 22	0340	94	2.66	2.40	0.732
July 12	0835	99	2.80	2.43	0.741	Sept. 19	2205	96	2.72	2.41	0.735
Aug. 1	1910	124	3.51	2.58	0.786	Sept. 24	0035	*158	4.47	*2.75	0.838
Aug. 6	1715	81	2.29	2.31	0.704	Sept. 25	0535	117	3.31	2.54	0.774

Minimum discharge, 0.06 ft^3/s (0.002 m^3/s) July 19, gage height, 1.14 ft (0.347 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	.45	.50	.45	.40	.76	.94	1.1	2.7	.22	7.6	.94
2	.45	.45	.45	.45	.40	.60	3.3	1.1	1.8	.22	.60	.45
3	1.6	.45	.45	.45	.40	.60	1.5	1.1	.45	.22	.94	.32
4	.45	.45	.45	.45	.40	4.1	3.1	1.5	.32	.22	.22	.45
5	.33	.60	.50	.45	.50	1.5	9.6	2.4	.32	.22	.22	.45
6	.35	.45	.50	.45	.45	.76	2.0	1.5	1.5	.76	1.8	2.2
7	.34	.45	5.0	.60	.45	.76	1.8	1.1	.60	.94	.45	.60
8	.59	.45	.76	.45	.40	.60	1.5	.94	.45	.60	.22	.32
9	4.6	.45	.60	.45	.70	.60	1.5	1.3	4.9	.22	.22	.32
10	.59	.60	.45	8.7	1.5	.60	1.5	.94	.76	.22	3.1	.32
11	.32	.60	.45	.94	2.5	.60	1.5	1.1	.45	.22	.60	.32
12	.32	.55	.60	.60	2.0	.60	1.5	.94	.32	6.2	.32	.32
13	.32	.55	.60	.45	1.5	5.8	1.5	.94	.32	.45	2.0	.32
14	.32	.60	.45	.45	1.0	1.8	1.3	.76	.45	.22	1.5	.32
15	.32	.60	.45	.45	.70	.94	1.1	.76	2.0	.22	.32	.32
16	.32	.60	.45	.45	.60	.94	1.3	.76	.45	.22	.22	.32
17	.32	.60	.45	.45	.45	.76	1.3	.76	.32	.22	.60	.60
18	.45	.60	.45	.40	.45	2.7	1.3	1.1	.32	.14	.32	.32
19	.45	.55	.45	.40	.50	1.1	1.1	.94	.32	.14	.22	3.1
20	6.0	.55	1.1	.40	.80	1.3	1.1	.76	1.3	.22	.22	4.1
21	1.7	.55	.94	.40	.50	.94	1.1	.76	.45	.22	.22	.32
22	.51	.60	.45	.40	.45	20	1.1	.60	.22	.14	8.0	.32
23	.45	.60	.45	.40	.45	2.2	1.1	.60	.22	.22	.45	.76
24	.75	.55	.45	.42	7.2	1.8	2.2	.60	.22	.32	2.7	7.2
25	1.0	.55	.45	.50	2.2	1.3	1.8	.60	.14	1.1	.76	11
26	1.8	.55	.60	.45	.94	1.3	4.9	.60	.22	.32	.45	1.0
27	.60	.55	.45	.45	.94	1.3	1.8	.45	.22	.22	.45	2.5
28	.60	.60	.45	.45	.94	1.3	2.0	.45	5.8	.14	.32	1.0
29	.61	2.0	.45	.40	---	1.3	1.5	.45	1.5	.14	.45	.70
30	.78	.60	.45	.40	---	1.1	1.1	.45	.32	.22	.32	.60
31	4.9	---	.45	.40	---	1.1	---	.60	---	.22	2.0	---
TOTAL	33.24	17.75	20.70	22.56	29.72	61.06	58.34	27.96	29.36	15.35	37.81	41.81
MEAN	1.07	.59	.67	.73	1.06	1.97	1.94	.90	.98	.50	1.22	1.39
MAX	6.0	2.0	5.0	8.7	7.2	20	9.6	2.4	5.8	6.2	8.0	11
MIN	.32	.45	.45	.40	.40	.60	.94	.45	.14	.14	.22	.32
CFSM	.92	.50	.57	.62	.91	1.68	1.66	.77	.84	.43	1.04	1.19
IN.	1.06	.56	.66	.72	.94	1.94	1.85	.89	.93	.49	1.20	1.33

CAL YR 1976 TOTAL 496.39 MEAN 1.36 MAX 15 MIN .14 CFSM 1.16 IN 15.77
WTR YR 1977 TOTAL 395.66 MEAN 1.08 MAX 20 MIN .14 CFSM .92 IN 12.57

01467086 TACONY CREEK AT COUNTY LINE, PHILADELPHIA, PA

LOCATION.--Lat 40°02'33", long 75°06'47", Philadelphia County, Hydrologic Unit 02040203, on left bank 20 ft (6 m) upstream from dam, 120 ft (37 m) upstream from Adams Avenue bridge in Philadelphia.

DRAINAGE AREA.--About 16.7 mi² (43.2 km²).

PERIOD OF RECORD.--October 1965 to September 1970, July 1974 to current year.

REVISED RECORDS.--WDR PA-76-1: 1974.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 61.11 ft (18.626 m) above mean sea level. Prior to June 1972 recording gage at site 1,600 ft (490 m) upstream at same datum.

REMARKS.--Records fair except those for January and February, which are poor.

AVERAGE DISCHARGE.--8 years (1965-70, 1975-77), 24.0 ft³/s (0.680 m³/s) 19.56 in/yr (497 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,550 ft³/s (129 m³/s) Aug. 27, 1967, gage height, 13.19 ft (4.020 m), from rating curve extended above 350 ft³/s (9.91 m³/s) on basis of slope-area measurement at gage height 9.06 ft (2.761 m); minimum, 1.8 ft³/s (0.051 m³/s) Sept. 12, 1966, gage height, 2.82 ft (0.860 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,100 ft³/s (31.2 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 22	1445	1,430	40.5	6.20	1.890
July 12	0930	1,220	34.6	5.81	1.771
Aug. 1	1830	*1,740	49.3	*6.77	2.063
Sept. 24	0130	1,720	48.7	6.72	2.048
Sept. 25	0600	1,500	42.5	6.32	1.926

Minimum discharge, 2.2 ft³/s (0.062 m³/s) July 22, 24, 25; minimum gage height, 2.14 ft (0.652 m) Dec. 3, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	8.1	6.3	6.5	6.4	9.8	14	13	43	5.5	171	24
2	15	7.2	7.2	6.4	6.2	9.0	67	16	52	5.5	13	8.0
3	39	8.1	6.3	6.3	6.0	9.3	20	13	9.0	4.0	54	7.0
4	12	9.0	6.3	7.2	5.8	75	49	29	9.0	4.0	8.1	7.1
5	9.1	8.1	6.3	6.3	8.0	26	145	45	7.2	4.7	7.2	6.4
6	10	8.1	6.3	7.2	7.6	12	27	17	37	23	70	50
7	8.1	8.1	94	7.2	6.8	10	22	13	17	27	11	12
8	9.1	7.2	11	7.2	6.2	9.8	20	12	9.0	35	7.2	7.6
9	94	7.2	8.1	7.2	5.9	9.5	19	17	101	6.3	7.2	7.5
10	12	8.1	8.1	109	17	9.6	18	13	13	4.7	55	8.7
11	9.1	8.1	8.1	15	34	9.3	17	12	8.1	4.7	12	6.8
12	11	9.0	10	12	23	9.3	17	12	7.2	101	10	6.9
13	11	8.1	9.1	10	21	116	17	11	6.3	7.2	38	6.7
14	11	8.1	9.1	12	12	30	16	10	8.1	5.5	55	6.7
15	9.1	8.1	9.1	10	11	14	15	10	47	4.7	9.0	6.3
16	10	8.1	10	9.0	10	13	16	9.0	7.2	5.5	7.2	7.2
17	11	8.1	10	8.5	8.9	13	16	9.0	6.3	4.7	21	18
18	12	8.1	9.1	8.0	9.4	52	15	23	6.3	4.0	8.1	6.9
19	13	8.1	8.1	7.8	9.2	14	15	16	4.7	4.0	7.2	57
20	111	9.1	19	7.6	15	17	16	10	38	8.1	7.2	95
21	29	9.1	16	7.4	7.5	13	17	9.0	10	4.0	6.3	7.9
22	9.1	9.1	7.2	7.2	6.2	257	15	8.1	5.5	3.3	129	8.9
23	9.1	9.1	7.2	7.0	6.9	36	16	8.1	4.7	3.3	9.0	21
24	12	9.1	6.3	7.0	102	24	50	8.1	4.7	3.3	43	125
25	16	9.1	6.3	9.1	35	20	25	9.0	7.2	35	12	165
26	37	9.1	12	7.0	11	18	80	9.0	4.7	7.2	7.2	16
27	8.1	10	7.2	6.8	10	17	25	9.0	4.7	4.0	7.2	29
28	9.1	10	7.2	7.8	14	17	35	8.1	109	3.3	6.3	22
29	9.1	30	7.2	8.0	---	17	20	8.1	42	3.3	5.5	11
30	9.1	7.2	7.2	7.2	---	15	15	7.2	6.3	7.2	6.3	10
31	75	---	6.8	6.8	---	14	---	8.1	---	4.0	38	---
TOTAL	679.1	273.9	352.1	351.7	422.0	915.6	859	401.8	632.2	347.0	848.2	771.6
MEAN	21.9	9.13	11.4	11.3	15.1	29.5	28.6	13.0	21.1	11.2	27.4	25.7
MAX	111	30	94	109	102	257	145	45	109	101	171	165
MIN	8.1	7.2	6.3	6.3	5.8	9.0	14	7.2	4.7	3.3	5.5	6.3
CFSM	1.31	.55	.68	.68	.90	1.77	1.71	.78	1.26	.67	1.64	1.54
IN.	1.51	.61	.78	.78	.94	2.04	1.91	.89	1.41	.77	1.89	1.72

CAL YR 1976 TOTAL 7782.4 MEAN 21.3 MAX 196 MIN 5.5 CFSM 1.28 IN 17.33
WTR YR 1977 TOTAL 6854.2 MEAN 18.8 MAX 257 MIN 3.3 CFSM 1.13 IN 15.27

01467089 FRANKFORD CREEK AT TORRESDALE AVENUE, PHILADELPHIA, PA

LOCATION.--Lat 40°00'25", long 75°05'33", Philadelphia County, Hydrologic Unit 02040203, on left bank at Worrel Avenue, 400 ft (122 m) upstream from Torresdale Avenue, 1.5 mi (2.4 km) west of Frankford Arsenal in Philadelphia.

DRAINAGE AREA.--33.8 mi^2 (87.5 km^2).

PERIOD OF RECORD.--October 1965 to September 1970, October 1974 to current year.

REVISED RECORDS.--WDR PA-67: 1966(M).

GAGE.--Water-stage recorder, concrete control, and crest-stage gage. Datum of gage is 1.08 ft (0.329 m) above mean sea level.

REMARKS.--Records poor.

AVERAGE DISCHARGE.--8 years (1965-70, 1975-77), 53.1 ft^3/s (1.504 m^3/s), 21.34 in/yr (542 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,550 ft^3/s (242 m^3/s) July 14, 1975, gage height, 13.47 ft (4.106 m), from rating curve extended above 1,300 ft^3/s (36.8 m^3/s); minimum, 3.3 ft^3/s (0.093 m^3/s) Sept. 29, 1968; minimum gage height, 2.73 ft (0.832 m) Jan. 17, 1977; minimum daily, 4.8 ft^3/s (0.14 m^3/s) Aug. 26, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 ft^3/s (85.0 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Mar. 22	1345	4,680	133	10.39	3.167	Aug. 22	0430	3,270	92.6	9.04	2.755
June 1	2315	4,820	137	10.52	3.206	Aug. 31	1815	3,430	97.1	9.20	2.804
July 12	0900	3,000	85.0	8.75	2.667	Sept. 6	1845	3,250	92.0	9.02	2.749
Aug. 1	-	*6,000	170	Unknown		Sept.24	0130	5,780	164	11.34	3.456
Aug. 6	1745	3,480	98.6	9.25	2.819	Sept.25	0530	5,370	152	11.00	3.353

Minimum discharge, 3.4 ft^3/s (0.096 m^3/s) Jan. 17, gage height, 2.73 ft (0.832 m), result of freezeup; minimum daily, 6.1 ft^3/s (0.17 m^3/s) Sept. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	95	12	8.9	7.0	10	15	16	17	136	21	500	39
2	27	11	7.9	8.1	10	12	230	19	133	20	25	9.6
3	92	12	7.9	8.1	10	12	38	17	21	15	120	8.5
4	19	13	7.5	9.2	10	258	151	58	16	12	12	8.1
5	21	10	7.1	9.2	19	54	431	85	12	9.9	11	9.2
6	18	9.1	7.3	8.8	13	21	58	38	97	105	167	174
7	17	8.8	342	14	11	19	21	28	22	60	18	20
8	14	8.5	17	9.2	10	13	25	20	12	80	11	13
9	359	9.5	9.4	9.4	13	13	17	21	354	12	10	11
10	17	8.4	9.1	390	27	13	19	15	21	14	150	17
11	11	8.4	8.9	17	65	12	18	17	13	11	25	8.3
12	14	8.5	10	11	50	12	17	15	12	238	19	6.8
13	19	9.5	9.2	9.2	38	395	17	14	12	18	133	9.5
14	9.6	8.7	8.5	9.8	18	58	19	13	21	12	202	8.5
15	9.6	8.8	8.4	19	14	25	16	17	119	10	14	6.1
16	8.5	8.8	9.2	17	13	20	16	13	15	14	18	11
17	10	8.9	9.6	8.8	12	18	16	12	17	11	80	31
18	9.1	8.3	8.4	8.5	15	160	17	67	17	11	12	11
19	8.8	8.9	8.1	8.8	12	17	18	24	10	11	9.4	50
20	399	8.5	36	10	31	35	20	20	90	24	9.4	290
21	60	7.9	21	10	12	16	20	14	15	11	14	21
22	14	7.9	10	9.5	11	635	20	12	9.0	8.8	363	39
23	12	7.7	8.4	10	11	45	19	12	9.0	8.8	12	80
24	28	7.9	8.1	10	314	28	136	12	9.0	13	122	322
25	30	9.1	8.0	14	76	21	58	12	15	100	19	480
26	88	8.9	16	12	17	21	334	14	9.0	20	11	113
27	19	9.8	9.4	10	17	20	33	14	9.0	10	14	145
28	9.9	10	13	14	19	19	19	18	380	12	10	71
29	8.9	58	9.6	15	---	18	20	20	50	14	8.7	18
30	10	9.5	8.5	12	---	17	18	20	25	20	7.7	20
31	234	---	7.9	11	---	19	---	19	---	10	174	---
TOTAL	1691.4	326.3	660.3	719.6	878	2041	1857	697	1680.0	936.5	2301.2	2050.6
MEAN	54.6	10.9	21.3	23.2	31.4	65.8	61.9	22.5	53.3	30.2	74.2	68.4
MAX	399	58	342	390	314	635	431	85	354	238	500	480
MIN	8.5	7.7	7.1	7.0	10	12	16	12	9.0	8.8	7.7	6.1
CFSM	1.62	.32	.63	.69	.93	1.95	1.83	.67	1.58	.89	2.20	2.02
IN.	1.86	.36	.73	.79	.97	2.25	2.04	.77	1.76	1.03	2.53	2.26

CAL YR 1976 TOTAL 15206.5 MEAN 41.5 MAX 648 MIN 6.0 CFSM 1.23 IN 16.74
WTR YR 1977 TOTAL 15758.9 MEAN 43.2 MAX 635 MIN 6.1 CFSM 1.28 IN 17.34

01467100 DELAWARE RIVER AT LEHIGH AVENUE, PHILADELPHIA, PA

LOCATION.--Lat 39°58'09", long 75°06'41", Philadelphia County, Hydrologic Unit 02040202, at center of river on a line midway between piers 14 and 18 Port Richmond Terminal through channel station +5.0 to a pierhead line on west bank of Petty Island.

DRAINAGE AREA.--7,940 mi² (20,600 km²).

PERIOD OF RECORD.--August 1949 to September 1970, February 1974 to current year.

REMARKS.--Samples collected about 5 to 15 ft (2 to 5 m) from bottom. Further information on this station is given in U.S. Geological Survey Water-Supply Paper 1262.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE (DEG C)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)
OCT												
07...	1140	235	19.0	83	46	22	6.8	14	2.5	45	37	35
NOV												
04...	1205	129	9.0	15	0	2.0	2.4	6.4	1.6	20	16	21
DEC												
02...	1210	221	5.0	68	33	18	5.5	13	2.2	42	34	35
JAN												
06...	1300	245	1.0	70	34	18	6.1	16	2.4	44	36	37
FEB												
17...	1145	290	1.0	88	41	25	6.3	21	2.3	58	48	39
MAR												
03...	1200	157	4.5	46	17	12	4.0	9.5	2.1	36	30	19
APR												
14...	1145	131	10.0	45	24	13	3.0	6.3	1.2	26	21	20
MAY												
12...	1150	173	17.0	58	29	15	5.0	10	1.8	35	29	26
JUN												
02...	1130	198	22.5	63	29	16	5.6	12	2.1	42	34	28
JUL												
07...	1210	273	27.0	84	37	22	7.0	18	2.7	57	47	42
AUG												
04...	1205	240	27.5	41	79	21	6.5	16	3.0	47	39	34
SEP												
08...	1140	315	27.0	87	54	22	7.8	22	3.9	40	33	51

DATE	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)	DIS-SOLVED NITRITE (N) (MG/L)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED ORTHO. PHOS-PHORUS (P) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)
OCT											
07...	21	.2	.4	141	132	1.5	.14	1.6	.11	50	20
NOV											
04...	10	.1	4.9	84	62	.67	.02	.69	.06	190	90
DEC											
02...	18	.1	5.0	122	122	.90	.05	.95	.07	120	130
JAN											
06...	25	.2	5.3	136	138	1.2	.04	1.2	.15	230	130
FEB											
17...	31	.2	4.5	173	164	1.0	.08	1.1	.15	170	190
MAR											
03...	16	.1	4.6	137	98	1.1	.04	1.1	.04	280	90
APR											
14...	10	.1	4.1	75	74	.78	.03	.81	.05	120	80
MAY											
12...	13	.1	2.3	95	94	.73	.04	.77	.06	50	40
JUN											
02...	16	.1	.5	178	108	1.3	.07	1.4	.08	80	50
JUL											
07...	23	.1	.2	178	150	1.2	.22	1.4	.11	40	20
AUG											
04...	20	.1	.6	163	131	1.3	.17	1.5	.11	30	10
SEP											
08...	29	.2	.5	182	160	.56	.18	.74	.07	50	150

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE AT PHILADELPHIA, PA

LOCATION.--Lat 39°57'11", long 75°08'05", Philadelphia County, Hydrologic Unit 02040202, at center of river on a line 200 ft (61 m) upstream of bridge from the north side of pier 12 north through channel station +14.3 to pierhead line on New Jersey side of river.

DRAINAGE AREA.--7,993 mi² (20,700 km²).

PERIOD OF RECORD.--August 1949 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1963 to current year.
pH: October 1967 to current year.
WATER TEMPERATURES: November 1960 to current year.
DISSOLVED OXYGEN: November 1960 to current year.

REMARKS.--Water-quality recorder (30°57'10", 75°08'18") located at river end of pier 11 north about 100 ft (30 m) downstream from bridge. Samples collected approximately 5 to 15 ft (2 to 5 m) from bottom. Records of discharge are given for 01463500 Delaware River at Trenton, NJ. Further information on this station is given in U.S. Geological Survey Water-Supply Paper 1809-0.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1,450 micromhos Nov. 20, 1964; minimum, 80 micromhos Aug. 30, 1971.
pH: Maximum, 8.1 Mar. 19, 1975; minimum, 5.6 Feb. 27, 1970.
WATER TEMPERATURES: Maximum, 31.0°C July 13-15, 1966; minimum, freezing point on many days during winter periods.
DISSOLVED OXYGEN: Maximum, 14.1 mg/L Dec. 14, 1962; minimum, 0.0 mg/L on many days each year.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 384 micromhos Aug. 1; minimum, 84 micromhos Mar. 16.
pH: Maximum, 7.4 Dec 9, 13, 14; minimum, 5.8 May 31.
WATER TEMPERATURES: Maximum, 30.0°C July 21, 22; minimum, freezing point Feb. 1, 2, 14.
DISSOLVED OXYGEN: Maximum, 12.5 mg/L Dec. 14; minimum, 0.0 mg/L on many days during Aug. and Sept.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE (DEG C)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)
OCT												
07...	1055	236	19.0	85	47	23	6.6	14	2.6	46	38	35
NOV												
04...	1145	132	9.5	26	9	3.7	4.1	6.4	1.7	21	17	23
DEC												
02...	1150	235	5.0	70	37	18	6.0	14	2.3	40	33	41
JAN												
06...	1225	245	.5	72	37	18	6.5	16	2.3	42	34	38
FEB												
17...	1115	299	.5	83	37	23	6.3	23	2.4	56	46	42
MAR												
03...	1130	159	4.5	41	15	12	2.7	9.5	2.2	32	26	23
APR												
14...	1130	133	10.0	49	31	14	3.3	6.7	1.3	21	17	22
MAY												
12...	1130	173	17.0	56	40	14	5.1	10	1.8	20	16	30
JUN												
02...	1115	202	22.0	63	24	17	5.0	13	2.1	47	39	30
JUL												
07...	1140	294	27.0	51	91	24	7.5	20	2.9	48	39	47
AUG												
04...	1140	258	27.5	35	79	21	6.5	16	3.0	54	44	36
SEP												
08...	1120	322	27.0	90	57	23	8.0	23	3.9	41	34	56

DATE	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED NITRATE (N) (MG/L)	DISSOLVED NITRITE (N) (MG/L)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED ORTHO. PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
OCT											
07...	20	.2	.4	143	132	1.5	.14	1.6	.12	40	20
NOV											
04...	13	.1	5.0	83	71	.66	.02	.68	.07	190	80
DEC											
02...	19	.1	5.2	129	130	.95	.05	1.0	.05	130	140
JAN											
06...	24	.9	5.0	145	137	1.0	.06	1.1	.14	210	130
FEB											
17...	33	.2	4.6	175	168	1.1	.12	1.2	.13	210	210
MAR											
03...	17	.1	4.4	103	87	--	--	--	--	200	100
APR											
14...	11	.1	4.1	76	77	.88	.04	.92	.03	130	90
MAY											
12...	12	.1	2.4	124	89	.74	.04	.78	.02	100	50
JUN											
02...	16	.1	.3	116	110	.71	.04	.77	.08	70	40
JUL											
07...	25	.1	.2	197	155	.85	.25	1.1	.12	60	90
AUG											
04...	21	1.0	.6	169	138	1.3	.24	1.5	.11	20	10
SEP											
08...	31	.2	.4	191	170	.78	.06	.84	.05	70	160

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE AT PHILADELPHIA, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C). WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	330	294	313	150	138	144	241	222	231	---	---	---
2	332	297	315	161	146	152	245	230	238	---	---	---
3	331	285	309	163	146	155	245	228	237	---	---	---
4	319	285	302	170	156	162	257	229	243	---	---	---
5	323	288	305	170	160	165	257	237	246	---	---	---
6	320	279	303	169	156	162	263	235	248	---	---	---
7	323	283	306	164	152	158	266	234	252	---	---	---
8	318	282	306	166	154	159	266	202	245	---	---	---
9	324	285	305	168	154	161	221	190	210	---	---	---
10	298	235	263	171	160	165	209	191	200	---	---	---
11	237	208	221	175	160	167	205	193	200	---	---	---
12	208	170	194	176	165	170	214	200	207	212	196	205
13	186	132	164	176	164	171	216	161	189	213	189	203
14	157	116	136	182	167	175	177	138	161	218	194	209
15	140	118	129	186	172	180	173	142	159	215	187	203
16	137	125	131	193	178	186	171	137	157	209	181	196
17	144	131	138	196	184	191	175	146	163	193	163	178
18	150	138	143	202	189	195	170	138	156	178	147	167
19	158	144	151	208	190	201	162	133	148	175	154	165
20	169	154	160	218	198	207	162	135	148	182	161	172
21	166	156	161	216	198	208	162	124	142	183	161	174
22	167	154	161	218	202	210	140	122	130	178	151	166
23	186	156	167	218	202	211	136	124	130	174	156	166
24	190	166	177	224	206	215	---	---	---	184	168	176
25	181	147	169	229	213	220	---	---	---	196	182	189
26	172	139	156	231	207	220	---	---	---	206	190	199
27	160	137	150	239	213	225	179	166	138	213	190	202
28	154	137	143	244	217	229	180	159	171	209	188	199
29	153	139	145	241	218	229	190	165	180	---	---	---
30	158	145	150	233	215	225	189	166	178	---	---	---
31	160	145	152	---	---	---	---	---	---	---	---	---
MONTH	332	116	204	244	138	187	266	122	189	218	147	186

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	240	194	213	211	174	195	---	---	---	167	135	148
2	223	202	212	192	154	171	---	---	---	160	134	146
3	231	204	216	174	150	160	---	---	---	152	135	146
4	245	202	224	162	145	155	---	---	---	161	141	149
5	254	214	236	160	133	148	---	---	---	163	142	154
6	229	194	214	150	133	139	118	105	111	162	146	154
7	234	198	218	147	124	139	---	---	---	163	149	156
8	229	200	220	131	111	124	---	---	---	165	154	159
9	---	---	---	123	113	119	---	---	---	183	156	169
10	---	---	---	125	115	120	---	---	---	192	172	184
11	---	---	---	128	117	123	---	---	---	195	184	189
12	---	---	---	131	121	127	146	131	138	196	179	189
13	---	---	---	152	126	132	147	133	140	192	173	183
14	---	---	---	137	124	130	146	136	141	189	176	184
15	---	---	---	138	95	117	147	137	143	191	178	184
16	---	---	---	102	84	94	153	141	146	194	167	180
17	---	---	---	106	88	97	152	142	147	181	167	176
18	---	---	---	113	96	105	161	147	154	185	165	176
19	---	---	---	120	106	111	164	153	159	187	167	178
20	---	---	---	129	109	118	167	158	163	193	170	182
21	---	---	---	150	113	127	175	165	170	188	170	181
22	326	287	309	158	126	139	187	167	176	191	171	181
23	320	282	304	144	119	132	188	174	180	191	168	182
24	361	285	313	140	129	133	190	177	184	193	174	186
25	321	258	288	139	127	134	191	180	187	204	178	192
26	261	240	250	140	129	135	194	181	188	217	193	204
27	245	217	235	144	133	137	193	181	188	220	200	210
28	230	201	213	149	136	141	197	162	188	227	201	215
29	---	---	---	165	140	147	190	136	161	233	199	217
30	---	---	---	160	147	150	174	133	150	234	206	221
31	---	---	---	---	---	---	---	---	---	234	208	222
MONTH	361	194	244	211	84	133	197	105	161	234	134	181

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE AT PHILADELPHIA, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	243	221	230	---	---	---	384	291	347	340	298	322
2	243	220	232	---	---	---	347	296	319	342	301	323
3	251	227	240	---	---	---	351	298	323	340	306	323
4	258	226	245	---	---	---	344	294	316	346	311	326
5	256	234	247	287	255	269	334	289	312	344	317	333
6	266	240	254	346	246	293	334	292	311	347	311	332
7	278	244	256	320	285	307	323	285	307	347	306	325
8	269	250	261	316	287	303	322	279	303	351	311	330
9	269	247	261	335	280	301	325	283	299	350	311	332
10	269	249	259	333	282	308	324	283	305	352	314	331
11	276	257	265	314	280	294	349	290	315	346	305	325
12	275	255	268	306	272	289	348	307	327	345	312	328
13	275	261	269	298	263	280	352	308	330	348	320	334
14	278	262	273	294	254	277	350	285	322	347	312	330
15	286	272	278	295	266	279	338	290	314	349	309	329
16	---	---	---	297	266	282	336	294	317	356	311	336
17	---	---	---	296	269	281	339	300	317	354	320	337
18	---	---	---	297	273	287	331	294	313	356	317	337
19	---	---	---	300	282	291	335	298	315	358	317	337
20	---	---	---	306	280	294	333	295	317	346	288	319
21	---	---	---	311	280	296	340	299	319	345	297	324
22	---	---	---	307	279	294	330	285	313	341	296	320
23	---	---	---	310	279	293	326	282	303	339	286	310
24	---	---	---	310	276	294	325	279	305	327	269	292
25	---	---	---	304	279	292	323	280	299	308	257	280
26	---	---	---	355	295	325	317	283	301	294	236	268
27	---	---	---	376	324	343	322	284	304	260	160	223
28	---	---	---	365	326	348	321	289	306	201	146	170
29	---	---	---	372	329	352	318	294	304	156	112	133
30	---	---	---	378	335	358	328	295	313	146	106	124
31	---	---	---	378	329	357	334	300	318	---	---	---
MONTH	286	220	256	378	246	303	384	279	313	358	106	301

PH (UNITS), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	6.7	6.5	6.6	7.1	6.9	7.0	7.1	6.8	7.0	---	---	---
2	6.7	6.5	6.6	7.1	6.9	7.0	7.1	6.8	6.9	---	---	---
3	6.8	6.5	6.7	7.1	6.9	7.0	7.2	6.9	7.1	---	---	---
4	6.8	6.6	6.7	7.1	6.9	7.0	7.2	6.9	7.0	---	---	---
5	6.8	6.6	6.7	7.0	6.9	6.9	7.2	6.8	7.0	---	---	---
6	6.9	6.6	6.7	7.0	6.9	7.0	7.1	6.7	6.9	---	---	---
7	6.8	6.6	6.7	7.0	6.9	7.0	7.1	6.7	6.8	---	---	---
8	6.8	6.6	6.7	7.1	6.9	7.0	7.2	6.8	6.9	---	---	---
9	6.8	6.6	6.7	7.1	6.9	7.0	7.4	7.0	7.2	---	---	---
10	7.0	6.7	6.9	7.1	6.9	7.0	7.3	7.0	7.1	---	---	---
11	7.0	6.9	7.0	7.0	6.9	7.0	7.2	7.0	7.1	---	---	---
12	7.0	6.8	6.9	7.0	6.8	6.9	7.1	6.9	7.0	6.8	6.5	6.7
13	6.9	6.8	6.8	7.0	6.9	7.0	7.4	6.8	7.1	6.9	6.5	6.7
14	6.8	6.7	6.7	7.0	6.9	7.0	7.4	7.2	7.3	6.8	6.5	6.6
15	6.7	6.6	6.7	7.1	6.9	7.0	7.3	7.2	7.2	6.9	6.5	6.7
16	6.8	6.6	6.7	7.1	6.9	7.0	7.3	7.0	7.2	6.9	6.6	6.7
17	6.8	6.6	6.7	7.1	6.9	7.0	7.2	7.0	7.1	6.9	6.7	6.8
18	6.8	6.6	6.7	7.1	6.9	7.0	7.2	7.0	7.1	7.0	6.7	6.8
19	6.8	6.5	6.7	7.1	6.8	7.0	7.2	7.0	7.1	7.0	6.8	6.8
20	6.8	6.5	6.7	7.1	6.8	7.0	7.2	6.9	7.0	6.9	6.7	6.8
21	6.8	6.5	6.6	7.1	6.8	6.9	7.1	6.5	6.9	7.0	6.7	6.8
22	7.0	6.7	6.8	7.1	6.8	7.0	6.8	6.5	6.6	7.0	6.8	6.9
23	7.1	6.9	7.0	7.2	6.9	7.0	---	---	---	7.0	6.8	6.9
24	7.1	7.0	7.0	7.1	6.9	7.0	---	---	---	6.9	6.7	6.8
25	7.2	6.9	6.9	7.1	6.8	7.0	---	---	---	6.9	6.7	6.8
26	6.9	6.8	6.9	7.1	6.8	7.0	---	---	---	6.9	6.7	6.8
27	6.9	6.9	6.9	7.1	6.8	7.0	7.0	6.8	6.9	6.9	6.7	6.8
28	7.0	6.9	6.9	7.1	6.8	7.0	7.1	6.7	6.9	7.0	6.8	6.9
29	7.0	6.9	7.0	7.1	6.8	6.9	7.1	6.7	6.9	---	---	---
30	7.0	6.9	7.0	7.1	6.9	7.0	7.2	6.9	7.0	---	---	---
31	7.0	6.9	6.9	---	---	---	---	---	---	---	---	---
MONTH	7.2	6.5	6.8	7.2	6.8	7.0	7.4	6.5	7.0	7.0	6.5	6.8

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE AT PHILADELPHIA, PA--Continued

PH (UNITS), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	6.8	6.3	6.5	7.0	6.9	7.0	---	---	---	6.7	6.6	6.6
2	6.9	6.5	6.8	7.0	6.9	7.0	---	---	---	6.7	6.5	6.6
3	6.9	6.5	6.7	7.0	6.9	6.9	---	---	---	6.6	6.5	6.6
4	6.8	6.5	6.7	6.9	6.8	6.8	---	---	---	6.6	6.4	6.5
5	6.8	6.5	6.6	6.9	6.7	6.8	---	---	---	6.6	6.4	6.5
6	6.9	6.7	6.8	7.0	6.8	6.9	6.9	6.6	6.8	6.6	6.3	6.5
7	6.9	6.6	6.8	7.0	6.8	6.9	---	---	---	6.6	6.4	6.5
8	6.9	6.6	6.7	6.8	6.8	6.8	---	---	---	6.7	6.5	6.6
9	6.8	6.5	6.6	6.8	6.7	6.7	---	---	---	6.7	6.5	6.6
10	6.7	6.5	6.6	6.8	6.6	6.7	---	---	---	6.8	6.5	6.6
11	6.8	6.5	6.6	6.8	6.6	6.7	---	---	---	6.8	6.5	6.6
12	6.8	6.6	6.7	6.7	6.6	6.7	6.9	6.7	6.8	6.8	6.6	6.7
13	6.8	6.5	6.7	6.7	6.6	6.6	6.9	6.6	6.7	6.8	6.6	6.7
14	6.9	6.3	6.7	6.8	6.6	6.7	6.8	6.6	6.7	6.8	6.6	6.7
15	7.0	6.6	6.8	6.8	6.7	6.8	6.9	6.6	6.7	6.8	6.6	6.7
16	7.0	6.8	6.9	6.7	6.5	6.6	6.8	6.6	6.7	6.8	6.6	6.7
17	---	---	---	6.7	6.6	6.6	6.8	6.5	6.7	6.7	6.5	6.6
18	6.7	6.3	6.5	6.9	6.7	6.7	6.8	6.5	6.6	6.7	6.5	6.6
19	6.7	6.4	6.5	6.8	6.7	6.8	6.7	6.5	6.5	6.6	6.4	6.5
20	6.6	6.4	6.5	6.8	6.7	6.8	6.6	6.3	6.5	6.5	6.4	6.4
21	6.6	6.5	6.5	6.8	6.5	6.8	6.7	6.4	6.5	6.5	6.3	6.4
22	6.9	6.5	6.7	6.9	6.7	6.7	6.7	6.4	6.5	6.6	6.3	6.4
23	6.9	6.7	6.8	7.0	6.6	6.9	6.7	6.4	6.5	6.6	6.4	6.5
24	6.9	6.6	6.7	7.1	6.9	7.0	6.7	6.4	6.5	6.6	6.3	6.4
25	7.1	6.7	6.9	7.1	7.0	7.0	6.6	6.4	6.5	6.5	6.3	6.4
26	7.2	7.0	7.1	7.1	6.9	7.0	6.8	6.4	6.6	6.5	6.2	6.4
27	7.2	7.0	7.1	7.1	6.9	7.0	6.9	6.6	6.8	6.4	6.2	6.3
28	7.1	6.9	7.0	7.1	6.9	7.0	7.0	6.7	6.8	6.4	6.2	6.3
29	---	---	---	7.0	6.9	6.9	6.8	6.7	6.8	6.4	6.2	6.3
30	---	---	---	7.0	6.9	6.9	6.7	6.6	6.7	6.4	5.9	6.3
31	---	---	---	---	---	---	---	---	---	6.4	5.8	6.2
MONTH	7.2	6.3	6.7	7.1	6.5	6.8	7.0	6.3	6.6	6.8	5.8	6.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	6.4	6.2	6.3	---	---	---	6.9	6.7	6.8	6.7	6.5	6.6
2	6.4	6.2	6.3	---	---	---	6.9	6.7	6.8	6.7	6.5	6.6
3	6.4	6.2	6.3	---	---	---	6.9	6.7	6.8	6.7	6.6	6.6
4	6.4	6.2	6.3	---	---	---	6.8	6.6	6.8	6.7	6.5	6.6
5	6.4	6.2	6.3	6.8	6.6	6.7	6.9	6.8	6.8	6.7	6.5	6.6
6	6.4	6.2	6.3	6.8	6.6	6.7	6.9	6.8	6.8	6.7	6.5	6.6
7	6.5	6.2	6.3	6.7	6.6	6.7	6.9	6.8	6.8	6.7	6.6	6.7
8	6.5	6.3	6.4	6.8	6.7	6.7	6.9	6.7	6.8	6.7	6.6	6.7
9	6.5	6.3	6.4	6.8	6.7	6.7	6.8	6.7	6.8	6.7	6.5	6.7
10	6.5	6.2	6.4	6.8	6.7	6.8	6.9	6.7	6.8	6.7	6.6	6.7
11	6.6	6.3	6.4	6.8	6.7	6.8	6.8	6.4	6.7	6.8	6.6	6.7
12	6.6	6.4	6.5	6.8	6.8	6.8	6.7	6.5	6.6	6.8	6.6	6.7
13	6.6	6.4	6.5	6.9	6.8	6.8	6.7	6.5	6.6	6.8	6.6	6.7
14	6.6	6.4	6.5	6.9	6.8	6.9	6.7	6.5	6.6	6.8	6.6	6.7
15	6.7	6.4	6.6	6.9	6.8	6.9	6.7	6.5	6.6	6.8	6.6	6.7
16	---	---	---	6.9	6.9	6.9	6.7	6.5	6.6	6.8	6.6	6.7
17	---	---	---	6.9	6.9	6.9	6.7	6.4	6.6	6.8	6.6	6.7
18	---	---	---	6.9	6.9	6.9	6.7	6.6	6.6	6.8	6.6	6.7
19	---	---	---	6.9	6.9	6.9	6.7	6.5	6.6	6.8	6.6	6.7
20	---	---	---	6.9	6.9	6.9	6.7	6.5	6.6	6.7	6.6	6.7
21	---	---	---	6.9	6.9	6.9	6.7	6.5	6.6	6.8	6.6	6.7
22	---	---	---	6.9	6.9	6.9	6.7	6.4	6.6	6.8	6.6	6.7
23	---	---	---	6.9	6.8	6.9	6.7	6.5	6.6	6.8	6.6	6.7
24	---	---	---	6.9	6.8	6.9	6.7	6.5	6.6	6.8	6.7	6.7
25	---	---	---	6.9	6.8	6.9	6.7	6.5	6.7	6.8	6.7	6.8
26	---	---	---	7.0	6.8	6.9	6.7	6.5	6.7	6.9	6.7	6.8
27	---	---	---	7.0	6.8	6.9	6.7	6.5	6.6	6.9	6.8	6.9
28	---	---	---	6.9	6.8	6.9	6.7	6.5	6.6	6.9	6.8	6.9
29	---	---	---	6.9	6.8	6.8	6.7	6.6	6.7	6.9	6.8	6.8
30	---	---	---	6.9	6.7	6.8	6.7	6.2	6.6	6.8	6.7	6.7
31	---	---	---	6.9	6.7	6.8	6.7	6.5	6.6	---	---	---
MONTH	6.7	6.2	6.4	7.0	6.6	6.8	6.9	6.2	6.7	6.9	6.5	6.7

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE AT PHILADELPHIA, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	20.5	20.0	20.0	9.0	8.5	8.5	5.5	5.0	5.5	---	---	---
2	20.0	19.5	19.5	8.5	8.0	8.5	5.5	5.0	5.5	---	---	---
3	19.5	19.0	19.5	8.5	7.5	8.0	5.0	4.5	5.0	---	---	---
4	19.5	19.0	19.0	8.5	8.0	8.0	5.0	4.0	4.5	---	---	---
5	19.0	18.5	19.0	8.5	8.0	8.5	5.0	4.0	4.5	---	---	---
6	19.0	18.5	19.0	8.0	8.0	8.0	5.0	4.0	4.5	---	---	---
7	19.0	18.5	19.0	8.0	7.5	8.0	5.5	4.5	5.0	---	---	---
8	19.0	18.5	19.0	8.0	7.0	7.5	5.0	4.0	5.0	---	---	---
9	19.0	18.5	19.0	7.5	7.0	7.5	4.5	3.5	4.5	---	---	---
10	19.0	17.0	18.0	7.5	7.0	7.0	4.5	3.5	4.0	---	---	---
11	17.0	16.5	16.5	7.0	7.0	7.0	4.0	3.0	3.5	---	---	---
12	16.5	15.5	16.0	7.0	6.5	7.0	3.5	3.0	3.5	1.0	1.0	1.0
13	16.0	14.5	15.5	6.5	6.0	6.5	3.5	2.0	3.0	1.0	0.5	1.0
14	15.0	14.0	14.5	6.5	6.0	6.0	3.0	1.5	2.5	1.0	0.5	1.0
15	14.5	13.5	14.0	6.5	5.5	6.0	3.0	1.5	2.5	1.5	0.5	1.0
16	14.0	13.5	13.5	6.5	6.0	6.0	3.0	1.5	2.5	1.0	0.5	1.0
17	13.5	13.0	13.5	6.5	6.0	6.0	3.0	2.0	2.5	1.0	0.5	1.0
18	13.5	13.0	13.0	6.5	6.0	6.0	3.0	2.0	2.5	1.0	1.0	1.0
19	13.0	12.5	13.0	6.5	5.5	6.0	3.0	2.0	2.5	1.5	1.0	1.0
20	13.5	12.5	13.0	6.5	6.0	6.0	3.0	2.5	3.0	1.5	1.0	1.0
21	13.0	12.5	13.0	6.0	5.5	6.0	3.5	2.0	3.0	1.5	1.0	1.0
22	12.5	11.5	12.0	6.0	5.5	6.0	3.0	2.0	2.5	2.0	1.0	1.0
23	11.5	10.5	11.0	6.0	5.5	6.0	---	---	---	1.0	1.0	1.0
24	11.0	10.0	10.5	5.5	5.5	5.5	---	---	---	1.0	1.0	1.0
25	10.5	10.0	10.0	5.5	5.0	5.5	---	---	---	1.5	1.0	1.0
26	10.0	9.5	10.0	5.5	5.0	5.5	---	---	---	1.5	1.0	1.0
27	9.5	9.0	9.5	5.5	5.5	5.5	2.0	1.5	1.5	1.5	1.0	1.0
28	9.0	9.0	9.0	6.0	5.5	5.5	1.5	1.5	1.5	1.5	1.0	1.0
29	9.0	9.0	9.0	6.0	5.5	5.5	2.0	1.5	1.5	---	---	---
30	9.0	8.5	9.0	6.0	5.5	5.5	1.5	1.0	1.5	---	---	---
31	9.0	9.0	9.0	---	---	---	---	---	---	---	---	---
MONTH	20.5	8.5	14.5	9.0	5.0	6.5	5.5	1.0	3.5	2.0	0.5	1.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	0.5	0.0	0.0	6.0	5.0	5.5	---	---	---	15.0	14.0	14.5
2	1.0	0.0	0.5	5.5	5.0	5.5	---	---	---	15.0	14.5	14.5
3	1.0	0.5	1.0	5.5	5.0	5.0	---	---	---	15.5	14.5	15.0
4	1.0	0.5	1.0	5.5	5.0	5.0	---	---	---	15.5	15.0	15.0
5	1.0	0.5	1.0	5.5	5.0	5.5	---	---	---	16.0	15.0	15.5
6	1.0	0.5	0.5	5.5	5.0	5.5	9.0	8.5	8.5	16.5	15.5	16.0
7	1.0	0.5	1.0	6.0	5.5	5.5	---	---	---	17.0	16.5	17.0
8	1.0	1.0	1.0	6.0	5.5	5.5	---	---	---	17.5	16.5	17.0
9	1.0	0.5	1.0	6.0	5.5	5.5	---	---	---	17.5	16.5	17.0
10	1.0	1.0	1.0	6.5	6.0	6.0	---	---	---	17.0	16.0	16.5
11	1.0	0.5	1.0	7.0	6.5	6.5	---	---	---	16.5	16.0	16.5
12	1.0	1.0	1.0	7.5	6.5	7.0	10.0	9.5	10.0	17.0	16.5	16.5
13	1.5	0.5	1.0	8.5	7.5	8.0	11.0	10.0	10.5	17.5	16.5	17.0
14	1.5	0.0	1.5	10.0	8.5	9.5	12.0	11.0	11.0	17.5	17.0	17.0
15	2.0	1.5	1.5	10.5	9.0	10.0	12.5	11.5	12.0	17.5	17.0	17.0
16	2.0	1.5	1.5	9.5	8.0	8.5	13.5	12.0	12.5	17.5	17.0	17.5
17	---	---	---	8.0	7.5	8.0	14.0	12.5	13.5	18.0	17.5	17.5
18	2.0	1.5	2.0	8.0	8.0	8.0	15.0	13.0	14.0	19.0	18.0	18.5
19	2.0	1.5	2.0	8.0	8.0	8.0	15.5	14.0	15.0	19.5	18.5	19.0
20	2.5	2.0	2.0	8.0	7.5	7.5	16.0	14.0	15.5	20.0	19.0	19.5
21	2.5	2.0	2.5	7.5	7.0	7.5	16.5	15.5	16.0	20.5	19.5	20.0
22	3.0	2.0	2.5	8.0	7.0	7.5	17.0	16.0	16.5	21.0	20.0	20.5
23	3.5	3.0	3.0	7.0	6.0	6.5	17.5	17.0	17.5	22.0	20.5	21.5
24	4.0	3.0	3.5	6.5	6.0	6.5	17.5	17.0	17.5	22.5	21.5	22.0
25	4.5	4.0	4.0	6.0	5.5	6.0	17.5	17.0	17.5	22.5	22.0	22.0
26	5.0	4.0	4.5	6.0	5.5	5.5	17.5	16.5	17.0	23.5	22.0	22.5
27	6.0	5.0	5.5	6.0	5.5	5.5	17.5	17.0	17.0	23.5	22.5	23.0
28	6.0	5.5	5.5	6.5	5.5	6.0	17.5	15.5	17.0	24.0	23.0	23.5
29	---	---	---	7.5	6.0	6.5	16.5	14.0	15.5	23.5	23.0	23.0
30	---	---	---	7.5	7.0	7.5	15.5	13.5	14.5	23.0	20.5	22.5
31	---	---	---	---	---	---	---	---	---	23.0	21.0	22.5
MONTH	6.0	0.0	2.0	10.5	5.0	6.5	17.5	8.5	14.5	24.0	14.0	18.5

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE AT PHILADELPHIA, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	23.0	22.5	23.0	---	---	---	27.5	26.5	27.0	27.0	27.0	27.0
2	23.5	23.0	23.0	---	---	---	27.0	26.5	27.0	27.5	27.0	27.5
3	23.0	23.0	23.0	---	---	---	27.0	27.0	27.0	27.5	27.0	27.5
4	23.0	22.5	23.0	---	---	---	27.5	27.0	27.5	27.5	27.0	27.5
5	23.0	22.5	23.0	26.5	26.5	26.5	27.5	27.0	27.5	27.5	27.0	27.0
6	23.0	22.5	22.5	27.0	26.5	26.5	28.0	27.5	27.5	27.5	27.0	27.5
7	22.5	22.0	22.0	27.0	26.5	27.0	28.0	27.5	28.0	27.5	27.0	27.0
8	22.0	21.5	22.0	27.0	26.5	27.0	28.5	28.0	28.0	27.0	26.5	27.0
9	22.0	21.5	21.5	27.5	27.0	27.0	28.5	28.0	28.0	27.0	26.5	26.5
10	21.5	21.0	21.0	27.5	27.0	27.5	28.5	28.0	28.5	26.5	26.0	26.5
11	21.0	21.0	21.0	27.5	27.0	27.0	28.5	28.0	28.5	26.0	25.5	26.0
12	21.0	20.5	21.0	27.5	27.0	27.0	29.0	28.5	28.5	25.5	25.0	25.5
13	22.0	21.0	21.5	27.5	27.0	27.5	28.5	28.5	28.5	25.5	25.0	25.0
14	22.0	21.5	22.0	28.0	27.5	27.5	28.5	27.5	28.0	25.0	24.5	25.0
15	22.5	21.5	22.0	28.5	27.5	28.0	28.0	28.0	28.0	24.5	24.5	24.5
16	---	---	---	28.5	28.0	28.5	28.5	28.0	28.0	24.5	24.0	24.0
17	---	---	---	29.0	28.5	28.5	28.0	28.0	28.0	24.5	24.0	24.0
18	---	---	---	29.5	28.5	29.0	28.0	27.5	27.5	24.5	24.0	24.0
19	---	---	---	29.5	29.0	29.5	27.5	27.0	27.5	24.5	24.0	24.5
20	---	---	---	29.5	29.0	29.5	27.0	27.0	27.0	24.5	24.5	24.5
21	---	---	---	30.0	29.5	29.5	27.0	26.5	27.0	24.5	24.0	24.5
22	---	---	---	30.0	29.5	29.5	26.5	26.0	26.5	24.0	24.0	24.0
23	---	---	---	29.5	29.0	29.0	26.5	26.5	26.5	24.0	23.5	23.5
24	---	---	---	29.0	29.0	29.0	26.5	26.0	26.5	23.5	23.0	23.5
25	---	---	---	29.0	28.0	28.5	26.5	26.0	26.0	23.5	22.5	23.0
26	---	---	---	28.5	28.0	28.0	26.0	26.0	26.0	23.0	22.0	22.5
27	---	---	---	28.0	27.5	27.5	26.0	26.0	26.0	22.5	20.5	22.0
28	---	---	---	28.0	27.5	27.5	26.5	26.0	26.0	21.5	19.5	20.5
29	---	---	---	28.0	27.5	27.5	26.5	26.0	26.5	19.5	17.5	18.5
30	---	---	---	27.5	27.5	27.5	27.0	26.5	26.5	19.0	17.5	18.0
31	---	---	---	27.5	27.0	27.5	27.0	26.5	27.0	---	---	---
MONTH	23.5	20.5	22.0	30.0	26.5	28.0	29.0	26.0	27.5	27.5	17.5	24.5

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	2.5	0.8	1.3	9.7	8.4	9.1	8.2	6.0	6.9	---	---	---
2	2.9	0.8	1.5	9.8	8.7	9.2	7.6	5.9	6.7	---	---	---
3	3.4	1.0	1.8	9.8	8.7	9.2	8.6	6.5	7.5	---	---	---
4	4.7	1.8	3.0	9.5	8.3	8.9	8.6	6.1	7.1	---	---	---
5	4.8	1.5	2.6	9.0	8.2	8.6	8.3	5.9	6.9	---	---	---
6	5.2	1.4	2.7	9.3	8.2	8.7	8.2	5.9	6.8	---	---	---
7	4.8	1.1	2.4	9.5	8.5	8.9	7.8	5.6	6.3	---	---	---
8	3.8	0.9	2.0	9.4	8.5	9.0	8.4	5.6	6.5	---	---	---
9	2.9	0.6	1.3	9.4	8.4	8.9	10.3	7.2	8.3	---	---	---
10	4.9	1.5	3.3	9.1	8.3	8.7	10.9	8.4	9.7	---	---	---
11	5.3	4.8	5.0	9.2	8.0	8.5	11.8	10.0	10.9	---	---	---
12	6.2	4.8	5.4	9.1	7.6	8.3	12.2	9.3	10.5	10.5	9.1	9.6
13	6.8	5.4	5.8	9.0	7.8	8.4	12.1	9.8	10.9	10.9	8.7	9.7
14	7.2	5.6	6.3	9.0	7.8	8.4	12.5	10.4	11.2	9.9	8.1	8.8
15	7.4	5.8	6.5	9.3	7.7	8.4	12.0	10.3	11.1	9.7	7.8	8.5
16	7.5	5.9	6.8	8.9	7.4	8.2	12.0	9.7	10.7	9.0	7.5	8.2
17	7.1	5.6	6.4	9.0	7.2	8.0	11.1	9.2	10.1	10.1	7.8	8.7
18	7.1	5.7	6.4	8.7	7.1	7.9	11.4	9.2	10.2	9.7	7.5	8.4
19	7.1	5.4	6.2	8.8	6.9	7.7	11.5	9.4	10.3	9.0	7.2	7.9
20	6.5	4.8	5.6	8.5	6.9	7.6	11.1	9.3	10.1	8.0	6.2	7.0
21	6.5	4.7	5.5	8.5	6.8	7.5	10.9	8.8	10.0	---	---	---
22	7.8	5.4	6.5	8.9	7.0	7.8	11.0	9.1	9.9	---	---	---
23	8.1	7.0	7.6	9.1	7.6	8.2	10.1	9.1	9.5	---	---	---
24	8.1	7.4	7.7	8.8	7.5	8.1	---	---	---	---	---	---
25	8.1	7.1	7.5	8.6	7.0	7.7	---	---	---	---	---	---
26	8.6	7.1	7.8	8.7	6.9	7.6	---	---	---	---	---	---
27	8.9	8.0	8.5	8.6	6.7	7.5	10.3	9.1	9.6	---	---	---
28	9.1	8.5	8.8	8.3	6.4	7.3	10.5	8.8	9.4	---	---	---
29	9.1	8.5	8.8	8.2	6.3	7.1	10.2	8.3	9.0	---	---	---
30	8.9	8.0	8.5	8.2	6.3	7.2	10.6	8.6	9.3	---	---	---
31	8.8	7.9	8.4	---	---	---	---	---	---	---	---	---
MONTH	9.1	0.6	5.4	9.8	6.3	8.2	12.5	5.6	9.1	10.9	6.2	8.5

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE AT PHILADELPHIA, PA--Continued

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	9.1	6.3	7.7	11.4	9.5	10.2	---	---	---	7.3	5.1	6.2
2	7.7	5.7	6.9	11.5	10.1	10.9	---	---	---	7.0	5.3	6.2
3	6.9	4.3	5.6	11.4	10.2	10.8	---	---	---	6.7	5.4	6.0
4	7.1	3.7	5.0	11.5	9.9	10.6	---	---	---	6.6	4.5	5.3
5	7.1	3.2	4.3	12.0	9.8	10.9	---	---	---	6.1	4.0	4.8
6	9.0	4.5	6.4	12.0	11.2	11.7	10.4	10.2	10.3	5.8	3.6	4.6
7	7.8	4.3	5.8	11.9	11.3	11.5	---	---	---	6.2	3.4	4.5
8	7.7	3.4	5.0	12.0	11.3	11.5	---	---	---	5.9	3.7	4.8
9	5.4	2.4	3.6	11.7	11.0	11.3	---	---	---	6.0	4.2	5.4
10	5.5	1.7	3.1	11.6	10.8	11.1	---	---	---	6.0	4.7	5.4
11	5.7	1.4	3.0	11.4	10.4	10.8	---	---	---	5.8	4.2	4.8
12	5.7	1.7	3.2	11.2	10.1	10.5	10.2	9.4	9.8	5.8	3.8	4.7
13	6.0	1.6	3.2	10.9	9.7	10.2	10.1	8.7	9.5	6.3	4.0	4.9
14	6.6	2.1	4.0	10.5	9.7	10.1	9.5	8.2	9.0	6.3	4.1	5.0
15	8.8	2.7	5.2	10.4	9.9	10.0	9.4	7.5	8.4	6.4	4.1	5.2
16	9.3	4.7	6.6	10.4	9.7	10.0	8.5	6.8	7.7	6.8	4.2	5.5
17	---	---	---	10.5	10.1	10.3	8.3	6.3	7.3	6.4	4.7	5.5
18	8.3	4.9	6.5	10.5	9.8	10.1	7.7	5.8	6.7	5.9	4.5	5.0
19	8.2	4.3	6.0	10.2	9.7	10.0	6.8	5.1	5.8	4.8	3.0	3.7
20	7.7	4.1	5.7	10.3	9.5	9.8	5.9	4.3	5.0	3.8	1.8	2.6
21	7.9	4.6	6.0	10.3	9.5	9.9	5.5	3.7	4.3	4.5	1.6	2.7
22	8.6	5.3	6.6	10.3	9.3	9.8	5.0	2.9	3.7	5.2	1.7	3.2
23	8.9	5.3	6.8	10.9	10.1	10.6	5.3	2.4	3.4	5.6	2.1	3.5
24	8.3	4.5	6.0	10.9	10.4	10.6	4.5	2.0	3.0	5.0	1.9	2.9
25	11.1	4.7	7.7	11.1	10.6	10.9	3.7	1.6	2.7	3.7	1.1	2.0
26	12.0	10.0	11.0	11.1	10.6	10.8	6.0	1.9	3.6	3.0	0.5	1.4
27	11.6	10.4	11.0	11.2	10.4	10.7	6.4	4.1	5.1	1.9	0.2	0.7
28	10.5	9.8	10.7	11.0	10.2	10.6	7.1	4.3	5.5	1.7	0.1	0.5
29	---	---	---	10.6	10.0	10.5	7.5	5.4	6.2	2.2	0.1	0.8
30	---	---	---	10.5	10.2	10.3	7.5	5.4	6.2	1.9	0.2	0.8
31	---	---	---	---	---	---	---	---	---	1.4	0.2	0.6

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	1.7	0.1	0.7	---	---	---	2.8	0.5	1.3	0.5	.0	0.1
2	1.0	0.1	0.3	---	---	---	2.3	0.3	0.8	3.2	.0	0.8
3	0.8	0.1	0.2	---	---	---	1.1	0.4	0.5	3.0	0.3	1.0
4	0.9	0.1	0.3	---	---	---	2.3	0.7	1.4	4.3	0.3	2.1
5	1.0	0.1	0.4	1.3	0.3	0.7	3.7	0.6	1.7	3.3	0.2	2.3
6	0.4	0.1	0.2	1.6	0.2	0.5	5.0	0.6	1.8	2.5	0.1	0.8
7	0.6	0.1	0.3	0.3	0.2	0.2	4.5	0.6	2.3	0.8	0.1	0.2
8	0.9	0.1	0.4	0.6	0.2	0.3	2.3	0.6	1.2	0.7	0.1	0.3
9	1.1	0.1	0.4	0.6	0.2	0.3	1.8	0.1	0.8	1.0	0.1	0.4
10	1.0	0.1	0.4	1.4	0.2	0.7	1.8	.0	0.5	0.6	0.1	0.3
11	1.5	0.2	0.7	1.1	0.3	0.7	1.5	.0	0.5	0.9	0.1	0.4
12	1.5	0.3	0.7	0.7	0.2	0.4	0.9	.0	0.3	1.1	0.2	0.6
13	3.7	0.3	1.4	1.0	0.2	0.4	0.6	.0	0.1	1.3	0.3	0.7
14	3.3	0.5	1.1	1.3	0.2	0.5	1.9	.0	0.1	1.3	0.5	0.9
15	---	---	---	1.3	0.2	0.5	1.1	.0	0.3	1.1	0.3	0.6
16	---	---	---	1.5	0.2	0.6	1.4	.0	0.2	0.6	0.1	0.3
17	---	---	---	2.0	0.3	1.0	0.7	.0	0.2	0.4	0.1	0.2
18	---	---	---	2.5	0.6	1.2	1.0	.0	0.2	0.6	0.1	0.3
19	---	---	---	1.7	0.4	1.0	1.3	.0	0.5	0.7	0.1	0.3
20	---	---	---	0.8	0.2	0.5	1.1	.0	0.6	0.8	0.1	0.3
21	---	---	---	1.1	0.2	0.6	1.9	.0	1.2	0.5	0.1	0.2
22	---	---	---	1.9	0.2	0.9	2.6	0.3	1.1	0.4	0.1	0.1
23	---	---	---	2.1	0.3	1.1	1.1	0.1	0.4	0.9	0.1	0.2
24	---	---	---	3.8	0.3	1.7	0.8	.0	0.1	1.1	0.1	0.4
25	---	---	---	3.8	1.4	2.3	0.7	.0	0.2	1.5	0.2	0.8
26	---	---	---	3.1	0.7	1.7	1.4	.0	0.4	2.5	0.6	1.1
27	---	---	---	2.5	0.5	1.3	1.5	.0	0.4	4.1	1.3	2.3
28	---	---	---	1.9	0.3	1.1	1.5	.0	0.6	---	---	---
29	---	---	---	2.0	0.3	0.9	1.9	.0	1.0	---	---	---
30	---	---	---	1.0	0.3	0.5	1.8	0.2	0.8	---	---	---
31	---	---	---	2.1	0.3	0.9	1.1	.0	0.4	---	---	---
MONTH	3.7	0.1	0.5	3.8	0.2	0.8	5.0	.0	0.7	4.3	.0	0.7

01467300 DELAWARE RIVER AT WHARTON STREET, PHILADELPHIA, PA

LOCATION.--Lat 39°44'54", long 75°08'11", Philadelphia County, Hydrologic Unit 02040202, at center of river on a line between piers 53 and 55 South through channel station +22.6 to coal pier on New Jersey side of river.

DRAINAGE AREA.--8,000 mi² (20,700 km²).

PERIOD OF RECORD.--August 1949 to September 1970, February 1974 to current year.

REMARKS.--Samples collected about 5 to 15 ft (2 to 5 m) from bottom.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE (DEG C)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)
OCT												
07...	1030	244	19.0	88	51	22	8.0	21	3.1	45	37	44
NOV												
04...	1130	138	10.5	37	22	10	2.8	7.6	1.8	18	15	31
DEC												
02...	1130	253	5.0	73	41	19	6.2	16	2.4	39	32	48
JAN												
06...	1200	247	.5	71	36	18	6.3	16	2.4	42	34	39
FEB												
17...	1100	312	.5	83	42	22	6.7	24	2.5	50	41	47
MAR												
03...	1115	171	5.0	49	20	13	4.0	11	2.4	35	29	24
APR												
14...	1115	141	10.0	46	28	13	3.3	7.5	1.5	22	18	24
MAY												
12...	1115	183	17.0	55	31	14	4.9	10	1.9	30	25	34
JUN												
02...	1100	206	22.5	64	29	16	5.8	13	2.1	42	34	30
JUL												
07...	1115	302	27.0	49	92	24	7.7	21	3.0	52	43	50
AUG												
04...	1100	284	27.5	50	8	23	7.2	20	3.6	45	37	43
SEP												
08...	1100	343	27.0	89	62	22	8.2	25	4.0	33	27	61

DATE	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED NITRATE (N) (MG/L)	DISSOLVED NITRITE (N) (MG/L)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED ORTHO. PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
OCT											
07...	28	.2	.8	170	157	1.5	.15	1.6	.13	40	100
NOV											
04...	12	.1	5.0	95	83	.70	.03	.73	.07	190	90
DEC											
02...	22	.1	5.4	141	144	1.0	.06	1.1	.04	180	160
JAN											
06...	24	.2	5.2	134	137	1.0	.06	1.1	.08	230	130
FEB											
17...	35	.2	4.7	179	173	1.1	.16	1.3	.10	210	220
MAR											
03...	18	.1	4.4	121	100	1.1	.04	1.1	.04	270	110
APR											
14...	11	.1	4.2	91	76	--	.13	--	.04	130	90
MAY											
12...	14	.1	2.5	111	101	.85	.10	.95	.03	80	60
JUN											
02...	16	.1	.4	132	108	.69	.06	.75	.09	90	40
JUL											
07...	27	.1	.2	210	164	.97	.23	1.2	.10	60	90
AUG											
04...	26	.1	.8	168	153	1.0	.36	1.4	.13	30	70
SEP											
08...	34	.2	.4	195	176	.95	.04	.99	.04	70	180

01467400 DELAWARE RIVER AT LEAGUE ISLAND, PHILADELPHIA, PA

LOCATION.--Lat 39°52'56", long 75°10'43", Philadelphia County, Hydrologic Unit 02040202, at center of river on a line from north side of naval yard pier 4 through channel station +51.3 to covered wharf at Red Bank, NJ (below ferry slip).

DRAINAGE AREA.--8,070 mi² (20,900 km²).

PERIOD OF RECORD.--August 1949 to September 1970, February 1974 to current year.

REMARKS.--Samples collected about 5 to 15 ft (2 to 5 m) from bottom.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE (DEG C)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)
OCT 07...	1007	271	19.0	86	53	22	7.5	18	3.1	40	33	52
NOV 04...	1050	156	9.5	18	3	1.3	3.5	7.7	1.9	18	15	120
DEC 02...	1045	261	5.0	73	41	19	6.3	17	2.4	40	33	48
JAN 06...	1115	278	.5	79	54	20	7.1	18	2.5	31	25	54
FEB 17...	1015	382	.5	98	54	26	8.0	30	3.0	53	43	65
MAR 03...	1030	205	5.0	57	26	15	4.8	13	2.9	38	31	30
APR 14...	1030	154	10.0	51	33	14	3.9	8.5	1.7	22	18	27
MAY 12...	1030	196	17.0	63	41	16	5.7	12	2.0	27	22	34
JUN 02...	1030	230	22.0	65	37	16	6.1	15	2.4	34	28	42
JUL 07...	1030	347	27.0	68	99	25	8.8	28	3.4	38	31	61
AUG 04...	1020	364	27.0	59	99	25	8.8	27	4.1	48	39	59
SEP 08...	1025	401	27.0	100	68	24	10	33	4.3	40	33	67

DATE	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED NITRATE (N) (MG/L)	DISSOLVED NITRITE (N) (MG/L)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED ORTHO. PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
OCT 07...	24	.2	.9	163	167	4.1	.22	4.3	.06	90	90
NOV 04...	13	.1	5.6	142	167	.86	.03	.89	.03	860	140
DEC 02...	22	.2	5.7	146	146	1.1	.07	1.2	.04	140	180
JAN 06...	28	.2	5.8	156	157	1.2	.04	1.2	.05	260	170
FEB 17...	45	.1	5.6	227	217	1.3	.12	1.4	.09	160	270
MAR 03...	20	.1	4.4	140	116	1.4	.04	1.4	.05	300	140
APR 14...	13	.1	4.6	96	88	.95	.05	1.0	.03	130	100
MAY 12...	16	.1	3.0	144	122	4.5	.05	4.5	.04	100	70
JUN 02...	20	.1	.4	140	129	2.2	.11	2.3	.04	110	110
JUL 07...	37	.2	.3	210	188	.89	.21	1.1	.06	90	160
AUG 04...	38	.2	.7	207	193	1.2	.30	1.5	.06	40	140
SEP 08...	53	.3	.4	255	219	1.4	.10	1.5	.04	40	190

01467470 SCHUYLKILL RIVER AT PORT CARBON, PA

LOCATION--Lat 40°41'42", long 76°09'37", Schuylkill County, Hydrologic Unit 02040203, on left bank, 1,500 ft (457 m) upstream from Mill Creek, 2 mi (3.2 km) east of Pottsville.

DRAINAGE AREA.--27.1 mi² (70.2 km²).

PERIOD OF RECORD.--April 1975 to current year.

PERIOD OF DAILY RECORD.--
SUSPENDED SEDIMENT DISCHARGE: April 1975 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATIONS: Maximum, 2,570 mg/L Sept. 24, 1975; minimum 4 mg/L June 18, Sept. 1, 1976.
SEDIMENT LOADS: Maximum, 1,780 tons (1,615 tonnes) Jan. 27, 1976; minimum, 0.29 ton (0.26 tonne) Sept. 5, 6, 1976.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum, 2,120 mg/L Oct. 9; minimum, 7 mg/L Jan. 24-26.
SEDIMENT LOADS: Maximum, 2,600 tons (2,360 tonnes) Oct. 9; minimum, 0.41 ton (0.37 tonne) Feb. 12.

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	41	34	3.8	110	65	19	30	18	1.5
2	42	27	3.1	102	42	12	31	17	1.4
3	74	400	80	96	38	9.8	28	17	1.3
4	60	90	15	89	35	8.4	28	17	1.3
5	56	55	8.3	92	32	7.9	28	16	1.2
6	54	28	4.1	78	30	6.3	28	20	1.5
7	53	24	3.4	72	29	5.6	106	632	262
8	60	40	6.5	67	28	5.1	64	65	11
9	470	2120	2600	68	27	5.0	54	55	8.0
10	303	390	319	60	25	4.1	53	45	6.4
11	210	275	156	57	25	3.8	53	30	4.3
12	168	145	66	53	24	3.4	51	25	3.4
13	130	81	28	53	26	3.7	48	20	2.6
14	107	80	23	50	23	3.1	44	20	2.4
15	94	54	14	47	22	2.8	44	20	2.4
16	81	44	9.6	44	21	2.5	43	19	2.2
17	75	41	8.3	44	20	2.4	43	19	2.2
18	68	33	6.1	41	20	2.2	41	18	2.0
19	63	29	4.9	40	20	2.2	38	18	1.8
20	130	671	500	39	20	2.1	38	20	2.1
21	343	596	658	38	19	1.9	38	20	2.1
22	200	250	135	36	19	1.8	34	18	1.7
23	158	120	51	35	20	1.9	33	18	1.6
24	141	150	57	34	20	1.8	32	17	1.5
25	133	90	32	34	19	1.7	32	16	1.4
26	156	175	74	33	19	1.7	32	16	1.4
27	124	53	18	33	20	1.8	31	15	1.3
28	115	47	15	32	19	1.6	31	15	1.3
29	105	41	12	36	19	1.8	31	14	1.2
30	98	35	9.3	32	18	1.6	30	14	1.1
31	151	300	152	---	---	---	29	14	1.1
TOTAL	4063	---	5072.4	1645	---	129.0	1246	---	336.7

01467470 SCHUYLKILL RIVER AT PORT CARBON, PA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JANUARY			FEBRUARY			MARCH	
1	28	14	1.1	20	10	0.54	92	55	14
2	28	14	1.1	20	10	0.54	79	43	9.2
3	28	13	0.98	20	9	0.49	72	30	5.8
4	28	13	0.98	20	9	0.49	360	1450	1920
5	28	13	0.98	20	9	0.49	466	592	748
6	28	12	0.91	20	8	0.43	278	260	195
7	27	12	0.87	20	8	0.43	204	116	64
8	26	12	0.84	20	8	0.43	146	65	26
9	26	11	0.77	20	8	0.43	127	50	17
10	26	11	0.77	19	9	0.46	106	38	11
11	26	11	0.77	19	9	0.46	92	30	7.5
12	26	10	0.70	19	8	0.41	79	17	3.6
13	26	10	0.70	20	9	0.49	303	1420	1380
14	26	10	0.70	20	10	0.54	331	659	602
15	26	9	0.63	20	10	0.54	252	185	126
16	25	9	0.61	21	12	0.68	202	107	58
17	25	9	0.61	21	12	0.68	163	65	29
18	25	9	0.61	21	13	0.74	145	45	18
19	25	9	0.61	22	14	0.83	133	42	15
20	24	8	0.52	22	15	0.89	112	38	11
21	23	8	0.50	21	15	0.85	105	37	10
22	23	8	0.50	21	16	0.91	348	775	967
23	22	8	0.48	25	18	1.2	386	355	370
24	22	7	0.42	62	552	160	271	150	110
25	22	7	0.42	112	241	75	210	100	57
26	22	7	0.42	92	65	23	163	95	42
27	21	8	0.45	92	55	95	133	75	27
28	21	8	0.45	110	292	87	121	50	16
29	20	8	0.43	---	---	---	102	45	12
30	20	9	0.49	---	---	---	89	40	9.6
31	20	10	0.54	---	---	---	82	35	7.7
TOTAL	763	---	20.86	939	---	453.95	5752	---	6888.4

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	73	30	5.9	62	22	3.7	28	43	3.3
2	126	249	126	62	20	3.3	27	31	2.3
3	138	160	60	56	18	2.7	25	26	1.8
4	124	100	33	55	22	3.3	24	24	1.6
5	176	125	59	62	120	20	23	23	1.4
6	145	115	45	60	65	11	28	75	5.7
7	133	110	40	53	45	6.4	25	40	2.7
8	124	95	32	51	30	4.1	23	26	1.6
9	106	90	26	53	28	4.0	38	480	49
10	97	80	21	50	18	2.4	30	260	21
11	88	65	15	46	16	2.0	26	150	11
12	79	55	12	44	16	1.9	25	120	8.1
13	73	40	7.9	43	15	1.7	22	90	5.3
14	68	35	6.4	41	14	1.5	22	75	4.5
15	63	30	5.1	39	14	1.5	21	50	2.8
16	62	25	4.2	36	15	1.5	21	35	2.0
17	56	20	3.0	36	15	1.5	24	60	3.9
18	53	18	2.6	37	20	2.0	25	52	3.5
19	50	16	2.2	38	22	2.3	21	49	2.8
20	50	17	2.3	34	20	1.8	22	51	3.0
21	46	15	1.9	33	19	1.7	21	38	2.2
22	44	14	1.7	31	18	1.5	20	27	1.5
23	46	17	2.1	30	16	1.3	20	19	1.0
24	77	110	23	30	16	1.3	20	17	0.92
25	71	30	5.8	29	15	1.2	39	250	26
26	70	24	4.5	28	14	1.1	27	75	5.5
27	74	30	6.0	28	14	1.1	22	21	1.2
28	70	26	4.9	27	15	1.1	30	95	7.7
29	68	24	4.4	26	16	1.1	26	55	3.9
30	67	24	4.3	26	17	1.2	22	43	2.6
31	---	---	---	25	16	1.1	---	---	---
TOTAL	2517	---	567.2	1271	---	92.3	747	---	189.82

01467470 SCHUYLKILL RIVER AT PORT CARBON, PA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JULY			AUGUST			SEPTEMBER	
1	21	32	1.8	20	80	4.3	16	33	1.4
2	21	29	1.6	18	85	4.1	16	27	1.2
3	20	27	1.5	34	274	42	16	20	0.86
4	19	19	0.97	22	45	2.7	16	19	0.82
5	20	65	3.5	26	436	55	16	19	0.82
6	23	60	3.7	46	233	23	16	18	0.78
7	24	34	2.2	25	50	3.4	14	17	0.64
8	34	200	18	23	95	5.9	14	24	0.91
9	23	75	4.7	28	400	30	14	27	1.0
10	21	45	2.6	26	210	15	14	25	0.94
11	20	32	1.7	22	75	4.5	14	24	0.91
12	26	48	3.4	20	45	2.4	13	19	0.67
13	23	31	1.9	31	307	31	14	14	0.53
14	20	28	1.5	25	55	3.7	14	18	0.68
15	19	24	1.2	21	40	2.3	13	19	0.67
16	19	19	0.97	20	34	1.8	26	386	56
17	20	30	1.6	30	260	21	25	125	8.4
18	19	18	0.92	23	105	6.5	18	55	2.7
19	20	28	1.5	21	60	3.4	18	44	2.1
20	24	25	1.6	21	44	2.5	18	32	1.6
21	19	23	1.2	20	36	1.9	16	19	0.82
22	18	19	0.92	21	21	1.2	16	17	0.73
23	17	21	0.96	18	18	0.87	16	16	0.69
24	18	17	0.83	20	16	0.86	25	65	4.4
25	21	95	5.4	18	14	0.68	48	545	121
26	18	55	2.7	17	24	1.1	70	760	263
27	16	38	1.6	17	26	1.2	38	65	6.7
28	16	40	1.7	17	19	0.87	31	41	3.4
29	16	43	1.9	16	21	0.91	27	37	2.7
30	17	49	2.2	16	22	0.95	25	26	1.8
31	16	42	1.8	16	26	1.1	---	---	---
TOTAL	628	---	78.07	698	---	276.14	637	---	488.87

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)	PER CENT COAL
OCT					
20...	1430	108	391	114	34
20...	1630	134	606	219	17
20...	1930	179	688	332	43
20...	2030	221	1470	877	19
20...	2130	263	1560	1110	17
20...	2230	350	1950	1840	27
DEC					
07...	1200	278	1310	983	14
07...	1300	221	1110	662	12
07...	1400	181	679	332	11
07...	1700	111	235	70	17
FEB					
25...	1830	41	2290	254	5
25...	1930	89	2800	673	4
25...	2030	122	2580	850	9
25...	2130	177	2380	1140	7
25...	2230	248	1530	1020	14
25...	2330	255	1050	723	9
26...	0030	242	739	483	10
26...	0130	206	544	303	15
26...	0700	108	116	34	11
27...	2230	127	1180	405	8
27...	2330	141	3020	1150	10
28...	0030	150	820	332	15
28...	0130	150	611	247	9
28...	0430	130	335	118	51
28...	0630	127	223	76	56

01467500 SCHUYLKILL RIVER AT POTTSVILLE, PA

LOCATION.--Lat 40°41'01", long 76°11'11", Schuylkill County, Hydrologic Unit 02040203, 90 ft (27 m) upstream from Pottsville-Palo Alto Bridge, 1.5 mi (2.4 km) downstream from Mill Creek and 4.2 mi (6.8 km) upstream from West Branch.

DRAINAGE AREA -53.4 mi^2 (138 km^2).

PERIOD OF RECORD.--October 1975 to current year.

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COLLECTING SAMPLE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)
OCT									
25...	1210	9813	330	6.0	10.0	15	10.3	140	--
NOV									
16...	1015	9813	485	5.7	5.0	3	11.5	264	--
DEC									
15...	1135	9813	460	6.2	4.0	15	12.5	198	--
JAN									
06...	0940	9813	650	5.0	.0	25	13.0	370	--
FEB									
23...	1055	9813	600	5.1	6.0	15	--	300	0
MAR									
21...	1430	9813	350	5.5	10.0	10	10.1	150	0
APR									
11...	1145	9813	340	5.2	11.0	10	10.8	160	0
MAY									
12...	0930	9813	430	5.1	9.0	10	11.5	184	--
JUN									
21...	1250	9813	500	5.6	17.5	6	10.1	380	--
JUL									
06...	1145	9813	500	5.1	20.5	25	8.6	29	--
AUG									
09...	1150	9813	345	4.8	21.5	20	8.0	124	--
SEP									
19...	1335	9813	700	--	20.0	20	9.1	360	--

DATE	ACIDITY CO2 AS CACO3 (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	TOTAL FILTRABLE RESIDUE (MG/L)	TOTAL NONFILTRABLE RESIDUE (MG/L)	TOTAL RESIDUE (MG/L)
OCT									
25...	18	21	21	10	134	7.0	246	--	--
NOV									
16...	34	32	46	2	240	7.0	424	--	--
DEC									
15...	22	33	28	6	300	7.0	394	--	--
JAN									
06...	40	44	64	6	330	6.0	478	--	--
FEB									
23...	40	48	44	8	440	13	508	4	512
MAR									
21...	16	27	146	8	--	9.0	248	26	274
APR									
11...	26	24	24	18	157	8.0	264	22	286
MAY									
12...	0	24	31	8	170	9.0	294	16	310
JUN									
21...	48	46	66	4	320	9.0	478	16	--
JUL									
06...	30	38	48	4	250	14	548	62	610
AUG									
09...	16	25	15	4	122	14	174	50	--
SEP									
19...	38	53	56	16	280	9.0	636	32	--

01467500 SCHUYLKILL RIVER AT POTTSVILLE, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL ALPHA (PC/L)	TOTAL BETA (PC/L)
OCT								
25...	.53	.03	.17	.75	40	3300	--	--
NOV								
16...	.56	.02	.32	.75	10	2840	--	--
DEC								
15...	.50	.16	.26	.19	20	3000	--	--
JAN								
06...	.40	.04	.35	.14	10	4620	--	--
FEB								
23...	.48	.06	.46	.22	40	3500	--	--
MAR								
21...	.54	.02	.21	.12	20	3650	--	--
APR								
11...	.62	.02	.27	--	10	2940	--	--
MAY								
12...	.65	.02	.32	--	<10	2130	<1.0	<2.0
JUN								
21...	.74	.01	.30	.22	20	1460	--	--
JUL								
06...	1.0	.04	.64	.41	10	3050	--	--
AUG								
09...	1.4	.05	.49	.37	10	3600	<1.0	5.0
SEP								
19...	.98	.02	.36	.32	20	2850	--	--

DATE	TIME	CODE FOR AGENCY COLLECTING SAMPLE	TOTAL ALUMINUM (AL) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)
NOV									
16...	1015	9813	2550	<3	--	<50	2840	120	240
FEB									
23...	1055	9813	2120	>3	>10	>50	4270	100	230
MAY									
12...	0930	9813	1700	<3	--	<50	2230	100	230
AUG									
09...	1150	9813	2060	--	<10	<50	1610	60	150

01467950 WEST BRANCH SCHUYLKILL RIVER AT CRESSONA, PA

LOCATION.--Lat 40°38'03", long 76°11'33", Schuylkill County, Hydrologic Unit 02040203, at bridge on State Route 183 in Cressona, 0.2 mi (0.3 km) upstream from Panther Creek and 1.3 mi (2.1 km) upstream from Schuylkill River.

DRAINAGE AREA.--52.5 mi² (136 km²).

PERIOD OF RECORD.--October 1975 to current year.

COOPERATION.--Water quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL-LECTING SAMPLE	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (JTU)	DIS-SOLVED OXYGEN (MG/L)	HARD-NESS (CA,MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)
OCT												
25...	1150	9813	450	7.5	10.5	30	10.5	210	--	18	36	30
NOV												
16...	0955	9813	700	7.3	6.0	35	11.3	450	--	0	32	92
DEC												
15...	1120	9813	600	7.2	4.0	35	12.5	230	--	0	43	30
JAN												
06...	0920	9813	700	6.3	.0	40	13.7	440	--	0	60	72
FEB												
23...	1040	9813	600	6.5	5.0	10	--	380	0	0	58	58
MAR												
21...	1445	9813	490	6.5	10.0	30	10.3	250	0	0	42	36
APR												
11...	1125	9813	450	7.1	10.0	30	10.8	290	0	0	43	45
MAY												
02...	1245	9813	650	6.5	13.0	20	10.3	212	--	0	49	22
JUN												
21...	1225	9813	700	--	17.0	15	9.3	485	--	0	64	80
JUL												
06...	1120	9813	850	7.3	18.0	25	9.0	440	--	0	76	62
AUG												
09...	1125	9813	425	4.3	20.0	95	8.3	173	--	0	32	23
SEP												
19...	1310	9813	700	--	19.0	<1	9.2	400	--	0	64	59

DATE	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	TOTAL FILT-RABLE RESIDUE (MG/L)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
OCT												
25...	8	200	8.0	356	--	.59	.03	.22	.08	20	4340	--
NOV												
16...	24	400	7.0	578	--	.54	.02	.35	.07	10	5750	--
DEC												
15...	16	390	8.0	432	--	.67	.03	.31	.07	10	5200	--
JAN												
06...	22	400	8.0	584	--	.63	.03	.40	.09	<10	5110	--
FEB												
23...	22	420	20	552	--	.67	.03	.60	.09	10	1510	--
MAR												
21...	24	225	--	406	--	.60	.02	.28	.12	20	5300	--
APR												
11...	22	300	10	396	--	.56	.02	.30	.05	20	4250	--
MAY												
02...	28	210	9.0	400	--	.73	.03	.43	.06	10	4100	--
JUN												
21...	26	445	11	582	--	.74	.02	.38	.09	20	3000	--
JUL												
06...	28	390	12	820	--	.82	.02	.45	.13	--	4620	--
AUG												
09...	4	170	10	362	234	.94	.03	.16	.26	30	12500	<.01
SEP												
19...	14	300	11	630	20	.80	.03	.32	.33	10	1390	--

DATE	TIME	CODE FOR AGENCY COL-LECTING SAMPLE	TOTAL ALUM-INUM (AL) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)
NOV									
16...	0955	9813	1440	--	10	<50	3900	110	200
FEB									
23...	1040	9813	390	>3	>10	>50	2400	60	100
MAY									
02...	1245	9813	1280	--	<10	<50	2690	90	90
AUG									
09...	1125	9813	4920	--	10	<50	2240	60	140

01468500 SCHUYLKILL RIVER AT LANDINGVILLE, PA

LOCATION.--Lat 40°37'45", long 76°07'30", Schuylkill County, Hydrologic Unit 02040203, on left bank 10 ft (3 m) upstream from highway bridge at Landingville, 0.1 mi (0.2 km) upstream from Mahannon Creek, and 5 mi (8.0 km) downstream from West Branch Schuylkill River.

DRAINAGE AREA.--133 mi² (344 km²).

PERIOD OF RECORD.--August 1947 to April 1953, October 1963 to September 1965, August 1973 to current year.

REVISED RECORDS.--WDR PA-75-1: 1973(p), 1974(P).

GAGE.--Water-stage recorder. Datum of gage is 470.64 ft (143.451 m) above mean sea level. Prior to Aug. 27, 1947 nonrecording gage 10 ft (3 m) downstream at same datum.

REMARKS.--Records good except those for periods of no gage-height record, Jan. 1 to Feb. 8, and those for winter periods, which are fair.

AVERAGE DISCHARGE.--11 years (1947-52, 1963-65, 1975-76), 285 ft³/s (8.07 m³/s), 29.10 in/yr (739 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 8,570 ft³/s (243 m³/s) Nov. 25, 1950, gage height, 13.29 ft (4.051 m); minimum, 19 ft³/s (0.54 m³/s) Oct. 30, 31, Nov. 4, 1963.

EXTREMES OUTSIDE OF PERIOD OF RECORD.--Flood in June 1972 reached a stage of 17.36 ft (5.291 m), discharge, 14,000 ft³/s (396 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,300 ft³/s (36.8 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Oct. 9	1745	*4,190	119	*11.40	3.475
Oct. 21	0215	2,480	70.2	8.95	2.728
Feb. 24	2300	1,510	42.8	7.03	2.143
Mar. 5	0015	3,900	110	10.99	3.350
Mar. 13	1400	2,360	66.8	8.58	2.615
Mar. 22	1945	2,490	70.5	8.81	2.685
June 25	1815	1,730	49.0	7.45	2.271

Minimum discharge, 60 ft³/s (1.70 m³/s) Sept. 11, 12, gage height, 3.04 ft (0.927 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	303	658	156	125	88	501	406	332	179	112	79	95
2	325	604	158	120	88	428	656	335	139	99	91	103
3	586	560	156	120	88	373	823	314	121	89	138	87
4	550	522	150	115	94	1480	742	290	121	88	93	74
5	480	480	134	110	91	2610	992	328	107	112	111	72
6	428	434	135	110	90	1410	864	380	151	151	133	82
7	389	383	609	105	88	983	734	329	138	131	121	94
8	440	359	417	100	88	782	652	285	117	186	118	86
9	2740	341	341	100	89	668	559	302	187	123	246	86
10	1990	322	319	105	91	597	506	282	173	106	269	84
11	1140	298	301	105	96	539	471	259	129	104	217	65
12	849	279	275	100	110	507	435	237	111	158	170	71
13	704	269	264	100	130	1530	401	226	109	148	191	82
14	616	250	250	98	136	1740	371	221	107	120	136	86
15	522	238	240	97	128	1230	339	194	108	113	123	80
16	459	233	233	97	116	966	314	193	111	113	123	120
17	382	221	226	97	273	790	285	190	147	131	190	157
18	362	219	213	96	231	750	276	194	135	136	149	82
19	340	209	189	95	111	718	267	204	101	152	120	97
20	653	203	198	94	108	641	251	184	117	237	111	113
21	1770	185	212	94	105	608	240	181	120	143	97	97
22	1070	182	208	94	142	1390	226	153	107	123	125	98
23	837	184	181	93	127	1750	224	154	104	103	108	98
24	735	173	165	92	394	1200	401	158	103	89	116	119
25	716	166	154	93	726	932	395	154	369	120	103	290
26	863	161	150	92	516	794	389	154	226	107	98	468
27	726	166	150	91	498	691	492	154	140	95	99	298
28	660	154	145	90	612	641	427	159	186	92	85	239
29	588	191	140	97	---	571	398	139	153	88	90	196
30	521	167	140	94	---	504	369	135	124	90	101	181
31	811	---	130	90	---	462	---	139	---	74	95	---
TOTAL	23555	8811	6739	3109	5454	28786	13905	6959	4240	3733	4046	3900
MEAN	760	294	217	100	195	929	464	224	141	120	131	130
MAX	2740	658	609	125	726	2610	992	380	369	237	269	468
MIN	303	154	130	90	88	373	224	135	101	74	79	65
CFSM	5.71	2.21	1.63	.75	1.47	6.99	3.49	1.68	1.06	.90	.99	.98
IN.	6.59	2.46	1.88	.87	1.53	8.05	3.89	1.95	1.19	1.04	1.13	1.09

CAL YR 1976 TOTAL 113580 MEAN 310 MAX 2740 MIN 83 CFSM 2.33 IN 31.77
WTR YR 1977 TOTAL 113237 MEAN 310 MAX 2740 MIN 65 CFSM 2.33 IN 31.67

01469500 LITTLE SCHUYLKILL RIVER AT TAMAQUA, PA

LOCATION.--Lat 40°48'25", long 75°58'20", Schuylkill County, Hydrologic Unit 02040203, on left bank at pumping plant of Panther Valley Water Co., 0.6 mi (1.0 km) upstream from Tamaqua, and 0.8 mi (1.3 km) upstream from Panther Creek.

DRAINAGE AREA.--42.9 mi² (111.1 km²).

PERIOD OF RECORD.--October 1919 to current year. Monthly discharge only for some periods, published in WSP 1302. June 1916 to September 1919, gage heights and discharge measurements only, in reports of Water Supply Commission of Pennsylvania.

REVISED RECORDS.--WSP 756: Drainage area. WSP 971: 1942. WSP 1302: 1922, 1926-30. WSP 1432: 1920-21, 1933.

GAGE.--Water-stage recorder and broad-crested weir. Datum of gage is 817.48 ft (249.168 m) above mean sea level. Prior to June 21, 1929, nonrecording gage at site 3,600 ft (1,100 m) downstream at datum 28.64 ft (8.729 m) lower.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated by Still Creek Reservoir 6.5 mi (10.5 km) upstream (see p.232). Figures of daily discharge do not include water diverted from reservoir.

AVERAGE DISCHARGE.--58 years, 92.6 ft³/s (2.622 m³/s), 29.31 in/yr (744 mm/yr), adjusted for diversion and, since February 1933, for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,790 ft³/s (221 m³/s) Aug. 18, 1955, gage height, 11.10 ft (3.383 m), from rating curve extended above 3,200 ft³/s (91 m³/s) on basis of contracted-opening measurement of peak flow; minimum, 1.8 ft³/s (0.051 m³/s) Dec. 18, 1931, gage height, 1.21 ft (0.369 m); minimum daily, 2.9 ft³/s (0.082 m³/s) Sept. 2, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,450 ft³/s (41.1 m³/s) Oct. 9, gage height, 5.23 ft (1,594 m); minimum, 8.0 ft³/s (0.23 m³/s) Sept. 12, 13; gage height, 2.02 ft (0.616 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	202	233	107	34	15	190	116	102	31	81	12	10
2	199	208	31	33	15	156	151	96	30	74	13	11
3	281	199	27	33	16	130	270	89	29	66	16	12
4	328	193	32	33	16	484	233	83	26	66	14	11
5	295	184	32	31	17	1070	295	107	23	66	13	10
6	267	173	31	31	16	627	277	130	29	83	14	9.8
7	236	162	126	39	15	383	227	102	31	89	18	9.8
8	233	156	111	31	14	260	208	85	26	68	17	9.2
9	909	111	83	32	14	193	175	96	39	21	16	9.2
10	948	70	74	34	15	159	154	89	46	18	13	9.2
11	553	64	70	31	17	135	138	75	34	16	13	8.7
12	355	66	66	29	19	118	121	66	29	18	12	8.1
13	274	83	63	30	22	434	109	61	26	20	15	8.7
14	246	81	53	33	30	736	98	56	24	17	14	9.2
15	193	77	50	33	33	533	87	53	24	15	13	8.7
16	162	75	47	30	37	336	79	49	22	14	12	13
17	146	72	45	26	41	243	74	46	22	14	18	24
18	146	70	42	24	37	214	68	47	25	14	18	16
19	156	68	39	24	29	196	63	66	22	13	14	16
20	208	66	39	23	26	170	59	53	21	16	13	17
21	611	64	41	22	26	148	55	47	20	14	12	15
22	470	63	37	21	42	351	52	42	20	12	14	13
23	347	61	37	20	26	666	53	36	19	12	12	15
24	295	59	39	19	94	456	138	32	17	12	12	37
25	281	58	58	19	292	299	178	34	23	12	12	81
26	310	56	41	18	196	230	154	32	27	14	11	135
27	260	56	45	18	181	196	148	32	52	12	10	89
28	236	55	37	17	246	175	133	32	100	12	11	58
29	217	53	38	17	---	156	121	29	104	12	11	46
30	202	36	36	16	---	138	109	27	89	12	10	39
31	263	---	35	16	---	130	---	27	---	12	11	---
TOTAL	9829	2972	1612	817	1547	9712	4143	1921	1030	925	414	758.6
MEAN	317	99.1	52.0	26.4	55.3	313	138	62.0	34.3	29.8	13.4	25.3
MAX	948	233	126	39	292	1070	295	130	104	89	18	135
MIN	146	36	27	16	14	118	52	27	17	12	10	8.1
(ƒ)	2.3	1.0	1.7	1.0	1.5	4.7	3.1	1.8	.1	0	0	0
MEAN≠	323	98.8	54.3	27.4	51.4	323	141	62.2	30.2	24.4	2.8	18.4
CFSM≠	7.53	2.30	1.27	.64	1.20	7.53	3.29	1.45	.70	.57	.07	.43
IN.≠	8.68	2.57	1.46	.74	1.25	8.68	3.67	1.67	.78	.66	.08	.48

CAL YR 1976 TOTAL 38949.0 MEAN 106 MAX 1250 MIN 25 MEAN≠ 108 CFSM≠ 2.52 IN.≠ 34.38
WTR YR 1977 TOTAL 35680.6 MEAN 97.8 MAX 1070 MIN 8.1 MEAN≠ 99.2 CFSM≠ 2.31 IN.≠ 31.39

ƒ Diversion from Still Creek Reservoir, equivalent in cubic feet per second, furnished by Panther Valley Water Co.
≠ Adjusted for diversion and change in contents in Still Creek reservoir.

01469710 LITTLE SCHUYLKILL RIVER NEAR TAMAQUA, PA

LOCATION.--Lat 40°45'18", long 75°56'48", Schuylkill County, Hydrologic Unit 02040203, at bridge on State Route 443, 2.3 mi (3.7 km) downstream from Owe Creek and 3.7 mi (6.0 km) downstream from Tamaqua.

DRAINAGE AREA.--not available.

PERIOD OF RECORD.--October 1975 to current year.

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL-LECTING SAMPLE	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (JTU)	DIS-SOLVED OXYGEN (MG/L)	HARD-NESS (CA,MG) (MG/L)
OCT 25...	1325	9813	310	6.5	10.5	10	10.5	140
NOV 16...	1110	9813	500	7.2	6.0	25	11.1	300
DEC 15...	1250	9813	600	7.0	5.0	20	12.6	260
JAN 06...	1030	9813	900	6.1	3.0	45	12.3	570
FEB 22...	1410	9813	700	6.1	7.0	30	--	510
MAR 30...	1240	9813	340	5.1	13.5	15	9.7	138
APR 11...	1245	9813	320	5.8	12.5	10	10.6	146
MAY 12...	1030	9813	510	6.7	12.5	3	10.7	240
JUN 21...	1335	9813	650	--	19.0	15	8.8	460
JUL 06...	1230	9813	1100	6.7	24.0	35	8.3	620
AUG 09...	1300	9813	465	5.2	24.0	30	7.7	238
SEP 22...	0940	9813	1000	--	15.0	45	9.1	550

DATE	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	TOTAL FILT-RABLE RESIDUE (MG/L)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)
OCT 25...	--	18	27	18	4	120	10	130	--
NOV 16...	0	10	60	37	18	380	11	484	--
DEC 15...	--	22	56	29	12	390	13	456	--
JAN 06...	--	58	101	79	12	525	6.0	724	--
FEB 22...	0	0	80	77	22	480	20	614	60
MAR 30...	--	16	26	18	6	126	12	214	22
APR 11...	0	36	29	18	8	140	13	246	24
MAY 12...	0	12	46	31	6	200	13	336	46
JUN 21...	--	0	78	66	30	375	15	660	<5
JUL 06...	--	0	125	77	150	600	4.0	1000	30
AUG 09...	--	30	45	31	6	254	12	456	24
SEP 22...	--	26	134	53	28	520	12	1156	80

01469710 LITTLE SCHUYLKILL RIVER NEAR TAMAQUA, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TOTAL RESIDUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
OCT 25...	--	1.0	.03	.14	.11	20	2780	--
NOV 16...	--	1.0	.01	.48	.14	10	2520	.00
DEC 15...	--	1.1	.04	.61	.25	<10	6900	--
JAN 06...	--	.78	.05	.99	.30	20	10010	--
FEB 22...	674	.86	.03	1.0	.40	20	8000	.08
MAR 30...	236	.90	.01	.27	.05	>10	2840	--
APR 11...	270	1.0	.02	.42	.07	20	2940	--
MAY 12...	382	.94	.02	.45	.14	30	4150	<.01
JUN 21...	--	1.0	.04	.69	.22	20	3700	--
JUL 06...	1030	.76	.04	.64	.22	10	7230	--
AUG 09...	--	1.2	.03	.49	.17	<10	6600	<.01
SEP 22...	1236	1.2	.03	.54	.22	20	12100	--

DATE	TIME	CODE FOR AGENCY COLLECTING SAMPLE	TOTAL ALUMINUM (AL) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)
NOV 16...	1110	9813	1780	<3	10	<50	1610	20	90
FEB 22...	1410	9813	2120	<3	80	<50	3020	160	250
MAY 12...	1030	9813	1880	<3	<10	<50	1900	100	180
AUG 09...	1300	9813	2300	--	<10	<50	2750	50	300

01470500 SCHUYLKILL RIVER AT BERNE, PA

LOCATION.--Lat 40°31'21", long 75°59'55", Berks County, Hydrologic Unit 02040203, on right bank 50 ft (15 m) upstream from highway bridge at Berne, 0.5 mi (8 km) upstream from Mill Creek, and 6.5 mi (10.5 km) downstream from Little Schuylkill River. Water-quality sampling site at bridge 50 ft (15 m) downstream.

DRAINAGE AREA.--355 mi^2 (919 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1947 to current year. Monthly discharge only for August 1947, published in WSP 1302.

GAGE.--Water-stage recorder. Datum of gage is 310.65 ft (94.686 m) above mean sea level.

REMARKS.--Records good. Some regulation at low flow by mine pumpage and by Still Creek Reservoir about 25 mi (40 km) upstream from station (see p. 232).

AVERAGE DISCHARGE.--30 years, 702 ft^3/s (19.9 m^3/s), 26.85 in/yr (682 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 42,800 ft^3/s (1,210 m^3/s) June 22, 1972, gage height, 19.0 ft (5.79 m), from floodmark in gage shelter, from rating curve extended above 17,000 ft^3/s (481 m^3/s); minimum, 31 ft^3/s (0.88 m^3/s) Sept. 2, 1949.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in May 1942, reached a stage of 15.0 ft (4.57 m), from floodmarks, discharge, 26,900 ft^3/s (762 m^3/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,400 ft^3/s (125 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Oct. 9	2015	*12,100	343	10.97	3.344	Mar. 5	0330	10,200	289	10.32	3.146
Oct. 21	0900	6,300	178	8.84	2.694	Mar. 14	0100	6,500	184	8.92	2.719
Feb. 25	0100	ice jam		*13.50	4.115	Mar. 22	2300	8,050	228	9.54	2.908

Minimum daily discharge, 145 ft^3/s (4.11 m^3/s) minimum gage height, 4.80 ft (1.463 m) Sept. 11, 12, 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	612	1810	317	290	200	1550	883	906	295	267	193	204
2	645	1570	341	280	195	1280	1320	856	368	249	234	199
3	1080	1380	367	270	200	1100	2460	807	282	233	361	210
4	1330	1220	323	260	210	3110	2030	723	263	221	329	188
5	1070	1110	341	260	200	7650	2880	788	263	219	253	177
6	906	1030	317	250	200	4100	2630	1060	276	291	359	177
7	796	925	1600	240	200	2740	2110	1030	341	365	397	182
8	821	858	1500	230	200	2020	1810	856	263	405	346	177
9	6800	782	1050	230	200	1590	1490	836	327	315	616	171
10	6680	691	872	240	205	1320	1280	788	418	265	461	171
11	3430	644	787	240	210	1150	1150	695	288	240	638	155
12	2320	596	721	230	230	1020	1030	625	251	306	438	145
13	1780	610	663	220	270	3400	926	582	233	360	420	155
14	1490	599	582	220	320	5490	846	549	222	278	387	166
15	1220	566	561	220	340	3720	769	509	216	248	321	166
16	1060	535	536	220	310	2700	713	478	204	235	293	166
17	933	510	518	220	400	2030	659	462	199	254	338	341
18	835	502	484	220	360	1760	625	448	282	450	409	216
19	805	483	452	210	310	1660	599	501	210	290	288	193
20	1110	478	444	210	300	1430	565	448	199	640	263	216
21	3880	462	499	210	300	1280	541	418	257	404	244	216
22	3080	442	420	205	295	3490	509	389	193	334	296	188
23	2160	423	400	205	295	5890	501	368	182	273	262	188
24	1760	400	390	205	650	3620	957	354	177	244	243	233
25	1750	403	370	210	3620	2530	1520	341	389	250	238	625
26	2200	392	360	210	1840	1970	1280	334	751	320	224	936
27	1880	396	350	200	1560	1620	1480	314	348	238	223	769
28	1640	389	340	200	1890	1440	1330	314	388	220	219	573
29	1430	455	320	220	---	1290	1190	301	403	213	206	455
30	1250	389	310	210	---	1110	1020	282	297	216	217	396
31	2020	---	300	200	---	1010	---	288	---	211	210	---
TOTAL	58773	21050	16835	7035	15510	76070	37103	17650	8785	9054	9926	8354
MEAN	1896	702	543	227	554	2454	1237	569	293	292	320	278
MAX	6800	1810	1600	290	3620	7650	2880	1060	751	640	638	936
MIN	612	389	300	200	195	1010	501	282	177	211	193	145
CFSM	5.34	1.98	1.53	.64	1.56	6.91	3.49	1.60	.83	.82	.90	.78
IN.	6.16	2.21	1.76	.74	1.63	7.97	3.89	1.85	.92	.95	1.04	.88

CAL YR 1976 TOTAL 293883 MEAN 803 MAX 11800 MIN 200 CFSM 2.26 IN 30.80
WTR YR 1977 TOTAL 286145 MEAN 784 MAX 7650 MIN 145 CFSM 2.21 IN 29.98

01470500 SCHUYLKILL RIVER AT BERNE, PA.--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1947 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1963 to current year.
pH: October 1963 to September 1973.
WATER TEMPERATURES: February 1948 to September 1953, December 1957 to current year.
SUSPENDED SEDIMENT DISCHARGE: October 1947 to current year.

REMARKS.--Unpublished records of specific conductance and pH of sediment samples available in the district office at Harrisburg.

COOPERATION.--Twelve chemical analyses were furnished by the Pennsylvania Department of Environmental Resources.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,410 micromhos Oct. 25, 26, 28, 1964; minimum daily, 108 micromhos Jan. 27, 1976.
WATER TEMPERATURES: Maximum daily, 33.0°C July 3, 1966; minimum, freezing point on many days during winter periods.
SEDIMENT CONCENTRATIONS: Maximum daily, 8,030 mg/L Nov. 4, 1947; minimum daily, 0 mg/L on many days during 1952 and 1968.
SEDIMENT LOADS: Maximum daily, 90,180 tons (81,800 tonnes) Nov. 12, 1947; minimum daily, 0 ton (0 tonne) on many days during 1952 and 1968.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum daily, 32.0°C Jul.16; minimum daily, freezing point on many days during December through February.
SEDIMENT CONCENTRATIONS: Maximum daily, 227 mg/L Oct. 9; minimum daily, 1 mg/L on many days.
SEDIMENT LOADS: Maximum daily, 5,860 tons (5,320 tonnes) Oct. 9; minimum daily, 0.53 ton (0.48 tonne) Feb. 2.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)
OCT									
01...	1015	620	190	6.6	13.5	.1	5.0	120	13
NOV									
05...	0915	1130	280	6.5	7.5	.0	.0	110	8.6
DEC									
02...	1100	334	450	6.6	5.0	1.2	60	200	11
MAR									
10...	1310	1330	280	6.3	8.5	.5	25	86	12
APR									
08...	1045	1860	220	6.3	7.0	.0	.0	69	8.4
MAY									
04...	0945	700	310	7.0	14.0	.0	.0	110	9.1
JUN									
10...	0930	430	415	5.5	15.0	.0	.0	160	17
JUL									
11...	0930	239	500	7.1	23.5	.0	.0	190	13
AUG									
04...	0900	329	530	7.1	22.5	.0	.0	190	--
SEP									
15...	0900	177	740	6.7	17.0	.0	.0	200	--

01470500 SCHUYLKILL RIVER AT BERNE, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)
OCT								
25...	1110	9813	1710	250	7.5	10.5	6	8.7
NOV								
16...	0900	9813	533	420	7.1	3.5	6	11.7
DEC								
15...	1035	9813	541	330	7.3	3.0	6	11.1
JAN								
05...	1410	9813	260	508	7.2	.5	6	11.1
FEB								
23...	1000	9813	295	500	6.6	.0	7	--
MAR								
21...	1340	9813	1250	280	7.0	7.0	5	11.5
AP								
11...	1030	9813	1150	240	7.5	10.0	5	11.5
MAY								
02...	1130	9813	835	350	7.1	14.5	3	10.5
JUN								
21...	1125	9813	275	500	8.0	23.0	2	9.5
JUL								
06...	1030	9813	314	600	7.2	24.0	<1	8.2
AUG								
09...	1030	9813	740	460	7.5	24.5	15	8.3

DATE	HARD- NESS (CA,MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)
OCT									
25...	108	--	0	21	13	6	80	8.0	--
NOV									
16...	204	--	0	16	40	14	174	13	<.1
DEC									
15...	116	--	0	28	11	16	126	10	--
JAN									
05...	200	--	0	50	18	24	300	13	--
FEB									
23...	410	0	0	--	--	26	290	28	.1
MAR									
21...	104	0	2	18	14	18	96	13	--
APR									
11...	102	0	0	20	12	16	95	10	--
MAY									
02...	110	--	0	21	14	20	105	13	<.1
JUN									
21...	300	--	0	48	45	34	220	15	--
JUL									
06...	320	--	0	52	47	28	260	25	--
AUG									
09...	162	--	0	35	18	12	151	21	.1

01470500 SCHUYLKILL RIVER AT BERNE, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TOTAL FILT-RABLE RESIDUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	PHENOLS (UG/L)
OCT 25...	182	1.3	.02	.21	.08	10	970	--
NOV 16...	--	1.4	.02	.52	.05	<10	990	--
DEC 15...	234	1.7	.02	.74	.06	<10	1040	--
JAN 05...	384	1.5	.04	.81	.06	10	630	<10
FEB 23...	466	1.7	.04	.89	.16	30	1240	>10
MAR 21...	210	1.1	.02	.24	.08	--	760	--
AP 11...	194	.29	.02	.26	.05	10	650	>10
MAY 02...	220	1.3	.04	.31	.06	10	410	<10
JUN 21...	434	1.0	.04	.69	.09	10	430	<10
JUL 06...	530	1.7	.03	.12	.12	<10	230	<10
AUG 09...	360	1.7	.05	.25	.11	10	1410	<10

DATE	TIME	CODE FOR AGENCY COL-LECTING SAMPLE	TOTAL ALUM-INUM (AL) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)	TOTAL ALPHA (PC/L)	TOTAL BETA (PC/L)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
NOV 16...	0900	9813	120	<3	--	<50	1710	90	130	--	--	--
FEB 23...	1000	9813	40	3	50	>50	1950	60	100	--	--	>.01
MAY 02...	1130	9813	--	--	--	<50	930	90	90	<1.0	3.0	<.01
AUG 09...	1030	9813	4030	--	<10	<50	1150	<10	50	<1.0	5.0	<.01

01470500 SCHUYLKILL RIVER AT BERNE, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	210	442		---	224	311	259	547	401	621	610
2	---	216	456		---	228	296	293	515	480	629	608
3	---	252	423		---	235	297	389	501	493	587	618
4	---	267	490		---	230	219	304	503	---	532	598
5	---	276	500		---	136	202	308	508	553	476	604
6	---	301	515		---	207	172	293	515	556	481	654
7	---	302	473		---	231	198	258	543	519	439	673
8	163	310	---		---	203	209	---	534	517	503	703
9	169	305	214		---	230	236	310	514	477	404	699
10	149	294	235		---	238	240	300	511	492	493	692
11	138	331	237		---	262	261	298	469	507	309	679
12	212	353	265		---	275	281	309	486	527	431	668
13	241	367	288		---	226	288	338	499	502	305	693
14	243	398	332		---	142	294	341	475	455	358	688
15	275	417	321		---	167	323	350	536	480	368	---
16	280	408	326		---	201	330	386	519	501	385	---
17	329	382	370		---	207	334	402	516	501	383	---
18	369	378	398		---	228	373	390	---	461	377	---
19	344	392	386		---	250	370	400	541	540	405	---
20	324	400	423		---	261	366	398	532	465	426	---
21	299	402	437		---	265	384	401	544	497	409	---
22	173	450	435		---	245	386	420	558	458	400	---
23	207	452	394		---	141	415	452	544	462	379	---
24	224	425	412		---	177	342	478	493	474	---	---
25	244	440	438		331	200	293	465	460	450	488	---
26	215	439	468		199	203	232	---	501	472	453	---
27	229	475	412		219	247	241	476	449	528	449	---
28	224	465	437		219	262	207	478	397	497	503	---
29	264	472	411		---	263	226	472	408	537	540	---
30	267	474	---		---	292	230	471	411	517	---	---
31	252	---	---		---	308	---	513	---	479	608	---
MEAN	243	368	391		242	225	285	378	501	493	453	656

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.0	8.0	2.5	0.0	0.0	4.5	12.0	15.0	19.0	26.5	24.0	26.0
2	15.0	8.0	3.0	0.0	0.0	5.0	8.0	15.0	21.0	24.0	24.0	28.0
3	15.0	8.5	3.0	0.0	0.0	5.0	10.0	18.0	21.0	20.0	24.0	26.5
4	16.0	9.0	2.0	0.0	0.0	6.0	10.0	13.5	24.5	---	27.5	27.0
5	15.0	8.0	2.0	0.0	0.0	8.0	8.0	15.0	19.0	27.0	28.0	23.0
6	15.0	8.0	3.0	0.0	0.0	7.0	7.0	17.0	17.0	24.0	25.0	24.0
7	16.0	7.0	3.5	0.0	0.0	6.5	8.0	17.0	16.0	24.0	27.0	23.0
8	15.0	5.5	---	0.0	0.0	6.0	9.0	---	18.0	26.0	25.0	19.5
9	16.0	5.0	2.0	0.0	0.0	7.5	9.0	11.0	17.5	26.0	25.0	23.5
10	16.0	5.5	3.0	0.0	0.0	9.5	9.5	12.0	15.5	25.0	24.0	25.5
11	11.5	6.0	4.0	0.0	0.0	10.5	12.5	13.5	17.0	26.0	27.5	20.0
12	11.5	4.5	5.0	0.0	0.0	10.0	15.0	14.5	19.0	26.5	30.0	23.0
13	13.0	4.0	2.5	0.0	0.0	11.5	15.5	17.0	23.0	28.0	25.0	20.0
14	13.0	4.0	1.0	0.0	0.0	10.0	15.0	19.0	20.0	31.0	23.0	23.5
15	12.5	4.0	1.5	0.0	0.0	10.5	14.5	19.0	25.0	31.5	27.0	21.0
16	13.0	5.0	2.5	0.0	0.0	10.0	14.0	18.0	26.0	32.0	22.0	19.0
17	10.0	4.0	3.0	0.0	0.0	9.5	15.0	19.0	25.0	26.5	24.0	20.0
18	9.5	5.5	2.0	0.0	0.0	6.0	14.0	21.0	---	30.0	27.0	22.0
19	9.0	6.0	2.5	0.0	0.0	6.0	14.0	21.0	24.0	27.5	22.0	24.5
20	10.0	6.0	3.5	0.0	0.0	5.0	15.0	22.0	23.0	27.0	21.0	24.0
21	10.5	6.5	2.0	0.0	0.0	8.0	16.0	25.0	23.0	29.0	22.5	20.0
22	9.0	4.0	0.5	0.0	0.0	6.0	19.5	21.0	27.0	23.0	20.0	19.0
23	10.0	2.5	1.0	0.0	0.0	5.5	20.0	22.0	25.0	29.0	24.0	18.0
24	9.0	3.0	2.0	0.0	0.0	6.5	14.0	22.0	23.0	28.0	---	18.0
25	11.0	2.5	0.5	0.0	2.5	7.0	14.0	25.0	22.0	24.0	24.5	16.0
26	10.0	4.0	0.5	0.0	5.0	9.0	12.0	---	25.0	26.0	20.0	15.0
27	8.0	6.0	0.0	0.0	5.0	8.0	13.0	20.0	24.0	26.0	24.5	15.0
28	7.5	8.0	0.0	0.0	4.0	9.0	12.0	24.0	23.0	29.0	26.0	16.0
29	8.0	5.0	0.0	0.0	---	12.0	13.5	26.0	26.0	30.0	25.0	19.0
30	8.0	4.0	0.0	0.0	---	15.0	15.0	23.0	27.0	32.0	---	15.0
31	10.0	---	0.0	0.0	---	13.0	---	19.0	---	28.5	26.0	---
MEAN	12.0	5.5	2.0	0.0	0.5	8.0	13.0	19.0	22.0	27.0	24.5	21.0

01470500 SCHUYLKILL RIVER AT BERNE, PA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	612	7	12	1810	4	20	317	1	0.86
2	645	7	12	1570	2	8.5	341	2	1.8
3	1080	22	64	1380	2	7.5	367	3	3.0
4	1330	17	61	1220	1	3.3	323	3	2.6
5	1070	10	29	1110	6	18	341	2	1.8
6	906	6	15	1030	5	14	317	2	1.7
7	796	4	8.6	925	5	12	1600	46	334
8	821	12	27	858	5	12	1500	26	105
9	6800	227	5860	782	4	8.4	1050	12	34
10	6680	90	1620	691	5	9.3	872	7	16
11	3430	17	157	644	5	8.7	787	6	13
12	2320	16	100	596	4	6.4	721	5	9.7
13	1780	10	48	610	4	6.6	663	5	9.0
14	1490	6	24	599	4	6.5	582	5	7.9
15	1220	5	16	566	3	4.6	561	5	7.6
16	1060	4	11	535	4	5.8	536	4	5.8
17	933	4	10	510	3	4.1	518	4	5.6
18	835	4	9.0	502	3	4.1	484	3	3.9
19	805	4	8.7	483	3	3.9	452	3	3.7
20	1110	12	36	478	2	2.6	444	3	3.6
21	3880	55	800	462	1	1.2	499	3	4.0
22	3080	12	100	442	1	1.2	420	4	4.5
23	2160	6	35	423	1	1.1	400	4	4.3
24	1760	4	19	400	1	1.1	390	3	3.2
25	1750	4	19	403	1	1.1	370	6	6.0
26	2200	14	83	392	1	1.1	360	6	5.8
27	1880	6	30	396	1	1.1	350	5	4.7
28	1640	4	18	389	1	1.1	340	4	3.7
29	1430	2	7.7	455	2	2.5	320	4	3.5
30	1250	1	3.4	389	1	1.1	310	3	2.5
31	2020	16	87	---	---	---	300	3	2.4
TOTAL	58773	---	9330.4	21050	---	178.9	16835	---	615.16

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JANUARY			FEBRUARY			MARCH	
1	290	2	1.6	200	1	0.54	1550	11	46
2	280	2	1.5	195	1	0.53	1280	6	21
3	270	2	1.5	200	2	1.1	1100	5	15
4	260	2	1.4	210	1	0.57	3110	135	2450
5	260	1	0.70	200	3	1.6	7650	180	3720
6	250	3	2.0	200	2	1.1	4100	32	354
7	240	3	1.9	200	1	0.54	2740	18	133
8	230	4	2.5	200	1	0.54	2020	10	55
9	230	3	1.9	200	2	1.1	1590	7	30
10	240	3	1.9	205	3	1.7	1320	9	32
11	240	3	1.9	210	3	1.7	1150	9	28
12	230	2	1.2	230	2	1.2	1020	8	22
13	220	2	1.2	270	2	1.5	3400	93	1310
14	220	2	1.2	320	2	1.7	5490	82	1220
15	220	3	1.8	340	3	2.8	3720	25	251
16	220	2	1.2	310	3	2.5	2700	17	124
17	220	2	1.2	400	2	2.2	2030	15	82
18	220	2	1.2	360	2	1.9	1760	10	48
19	210	1	0.57	310	3	2.5	1660	11	49
20	210	1	0.57	300	1	0.81	1430	10	39
21	210	2	1.1	300	1	0.81	1280	9	31
22	205	2	1.1	295	1	0.80	3490	77	1300
23	205	3	1.7	295	8	6.4	5890	67	1070
24	205	3	1.7	650	105	184	3620	40	391
25	210	3	1.7	3620	175	1710	2530	20	137
26	210	2	1.1	1840	48	238	1970	13	69
27	200	2	1.1	1560	20	84	1620	11	48
28	200	3	1.6	1890	28	143	1440	9	35
29	220	3	1.8	---	---	---	1290	6	21
30	210	2	1.1	---	---	---	1110	5	15
31	200	2	1.1	---	---	---	1010	6	16
TOTAL	7035	---	44.04	15510	---	2395.14	76070	---	13162

01470500 SCHUYLKILL RIVER AT BERNE, PA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	883	7	17	906	2	4.9	295	12	9.6
2	1320	29	103	856	2	4.6	368	17	17
3	2460	24	159	807	2	4.4	282	10	7.6
4	2030	13	71	723	4	7.8	263	10	7.1
5	2880	25	194	788	5	11	263	9	6.4
6	2630	9	64	1060	19	54	276	11	8.2
7	2110	8	46	1030	18	50	341	12	11
8	1810	7	34	856	10	23	263	4	2.8
9	1490	7	28	836	9	20	327	8	7.1
10	1280	6	21	788	9	19	418	9	10
11	1150	5	16	695	8	15	288	6	4.7
12	1030	5	14	625	7	12	251	5	3.4
13	926	5	13	582	8	13	233	5	3.1
14	846	5	11	549	10	15	222	5	3.0
15	769	5	10	509	11	15	216	3	1.7
16	713	4	7.7	478	12	15	204	4	2.2
17	659	4	7.1	462	12	15	199	4	2.1
18	625	5	8.4	448	13	16	282	6	4.6
19	599	5	8.1	501	11	15	210	4	2.3
20	565	6	9.2	468	10	12	199	6	3.2
21	541	7	10	418	13	15	257	16	11
22	509	9	12	389	10	11	193	6	3.1
23	501	10	14	368	8	7.9	182	10	4.9
24	957	20	52	354	8	7.6	177	15	7.2
25	1520	20	82	341	10	9.2	389	35	37
26	1280	3	10	334	12	11	751	40	81
27	1480	7	28	314	10	8.5	348	27	25
28	1530	3	11	314	11	9.3	388	24	25
29	1190	2	6.4	301	9	7.3	403	15	16
30	1020	2	5.5	282	8	6.1	297	6	4.8
31	---	---	---	288	11	8.6	---	---	---
TOTAL	37103	---	1072.4	17650	---	443.2	8705	---	332.1

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JULY			AUGUST			SEPTEMBER	
1	267	3	2.2	193	2	1.0	204	6	3.3
2	249	2	1.3	234	15	9.5	199	5	2.7
3	233	2	1.3	361	45	44	210	6	3.4
4	221	3	1.8	329	15	13	188	7	3.6
5	219	4	2.4	253	10	6.8	177	10	4.8
6	291	7	5.5	359	12	12	177	9	4.3
7	365	8	7.9	397	14	15	182	9	4.4
8	405	9	9.8	346	20	19	177	10	4.8
9	315	7	6.0	616	45	75	171	8	3.7
10	265	5	3.6	461	24	30	171	5	2.3
11	240	8	5.2	638	30	52	155	3	1.3
12	306	15	12	438	12	14	145	4	1.6
13	360	11	11	420	14	16	155	5	2.1
14	278	8	6.0	387	16	17	[illegible]	6	2.7
15	248	7	4.7	321	15	13	156	7	3.1
16	235	5	3.2	293	10	7.9	166	15	6.7
17	254	12	8.2	338	25	23	341	30	28
18	450	35	43	409	28	31	216	8	4.7
19	290	12	9.4	288	11	8.6	193	7	3.6
20	640	30	52	263	8	5.7	216	6	3.5
21	404	8	8.7	244	9	5.9	216	6	3.5
22	334	6	5.4	296	8	6.4	188	6	3.0
23	273	4	2.9	262	5	3.5	188	9	4.6
24	244	4	2.6	243	6	3.9	233	17	11
25	250	8	5.4	238	7	4.5	625	42	71
26	320	9	7.8	224	8	4.8	936	54	136
27	238	3	1.9	223	9	5.4	769	25	52
28	220	2	1.2	219	7	4.1	573	14	22
29	213	1	0.58	206	8	4.4	455	5	6.1
30	216	1	0.58	217	9	5.3	396	3	3.2
31	211	1	0.57	210	7	4.0	---	---	---
TOTAL	9854	---	234.13	9926	---	465.7	8354	---	407.0

01470500 SCHUYLKILL RIVER AT BERNE, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM
OCT							
09...	1615	10400	16.0	381	845	30	51

DATE	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM	SUS. SED. SIEVE DIAM. % FINER THAN .500 MM
OCT						
09...	66	79	92	96	98	100

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)	PER CENT COAL
FEB						
25...	0915	3030	2.5	172	1410	4
MAR						
04...	2030	7490	6.0	413	8350	10
05...	0655	9920	5.0	257	6880	13

01470500 SCHUYLKILL RIVER AT BERNE, PA--Continued

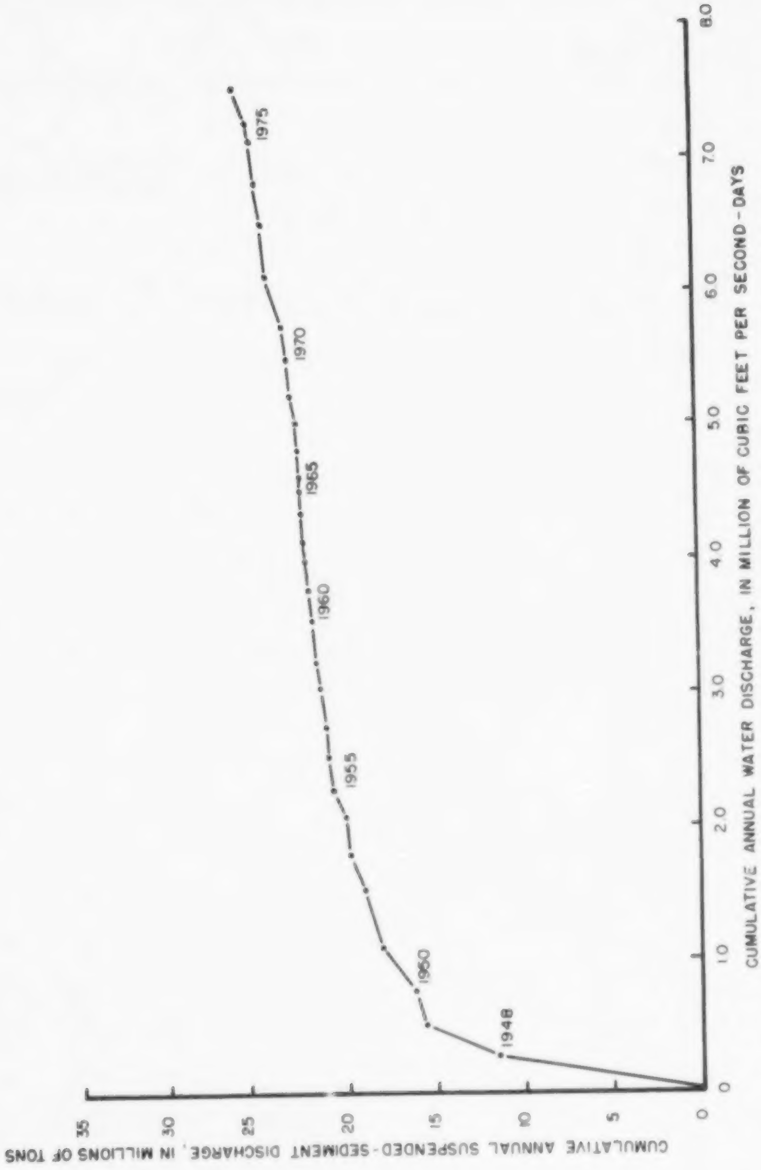

FIGURE —Double mass accumulation of annual suspended-sediment discharge versus annual water discharge Schuylkill River at Berne, Pa

Table 1.--Suspended sediment concentration-duration table, Schuylkill River at Berne, Pa.

Period	Mean daily concentration, in milligrams per liter, that was equaled or exceeded for indicated percentage of time													
	1	2	5	10	20	30	40	50	60	70	80	90	95	99
1977	130	82	38	23	13	9	8	6	5	4	3	2	1	1
1960-77	93	53	26	15	9	6	5	4	3	2	2	1	1	1

01470720 MAIDEN CREEK TRIBUTARY AT LENHARTSVILLE, PA

LOCATION.--Lat 40°34'23", long 75°52'34", Berks County, Hydrologic Unit 02040203, on left bank 60 ft (18 m) downstream from culvert on Interstate Highway 78, 0.5 mi (0.8 km) upstream from mouth, and 0.5 mi (0.8 km) east of Lenhartsville.

DRAINAGE AREA.--7.46 mi² (19.3 km²).

PERIOD OF RECORD.--Annual maximum and occasional discharge measurements, water years 1962-65. October 1965 to current year.

REVISED RECORDS.--WDR PA-72: 1967(M), 1969-71(M).

GAGE.--Water-stage recorder and masonry control. Datum of gage is 368.78 ft (112.404 m) above mean sea level. July 12, 1961 to Sept. 15, 1965 crest-stage gage at site 60 ft (18 m) upstream at same datum.

REMARKS.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--12 years, 12.1 ft³/s (0.343 m³/s), 22.03 in/yr (560 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,530 ft³/s (43.3 m³/s) June 22, 1972, gage height, 6.46 ft (1.969 m), from peak-stage indicator, from rating curve extended above 280 ft³/s (7.93 m³/s) on basis of computation of peak flow through culvert; maximum gage height, 6.7 ft (2.04 m) Feb. 8, 1965, from floodmark; no flow on many days.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 130 ft³/s (3.68 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 24	1945	*144	4.08	*3.49	1.064
Mar. 22	1500	132	3.74	3.44	1.049

Minimum discharge, 0.15 ft³/s (0.004 m³/s) Aug. 2, gage height, 2.24 ft (0.683 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	29	2.8	2.5	1.0	25	8.2	10	2.1	1.4	.40	3.3
2	10	27	2.3	2.5	1.0	19	29	10	1.9	1.1	.30	3.8
3	16	23	2.3	2.5	.97	15	43	7.7	1.4	.80	13	3.3
4	16	19	2.1	2.5	.96	50	43	7.7	1.3	.80	3.0	2.5
5	15	16	2.1	2.5	.94	69	65	13	1.3	.80	4.8	2.3
6	14	13	2.1	2.5	.92	53	65	22	2.5	1.6	15	2.1
7	12	11	33	2.4	.90	37	51	26	2.1	1.7	7.7	1.9
8	16	8.8	26	2.4	.90	28	37	24	1.6	2.5	7.7	1.9
9	62	62	21	2.4	.90	21	28	22	3.8	1.3	16	1.7
10	57	6.7	17	2.4	.90	17	21	17	2.3	1.1	23	1.6
11	39	6.3	14	2.4	.92	13	17	13	1.7	.95	20	1.4
12	28	5.5	12	2.4	1.0	11	13	11	1.4	3.8	17	1.3
13	21	5.1	10	2.3	1.4	47	11	8.2	1.4	1.9	24	1.4
14	16	4.8	7.8	2.1	1.2	74	9.4	6.7	1.4	1.3	19	1.4
15	12	4.4	6.3	2.0	1.1	60	7.7	5.9	1.4	.95	14	1.3
16	9.4	4.1	5.9	1.9	1.0	44	6.7	5.1	1.1	.80	11	3.0
17	7.7	3.8	5.5	1.8	1.0	32	5.9	4.4	1.6	.80	13	3.5
18	6.3	3.8	4.8	1.7	.98	28	5.5	4.4	1.9	1.1	8.2	1.9
19	5.5	3.5	4.4	1.6	1.1	24	5.1	4.8	1.1	.80	5.9	1.6
20	23	3.3	4.8	1.6	1.5	18	4.8	3.8	1.6	5.1	5.1	2.8
21	44	3.3	4.8	1.5	1.3	16	4.1	3.3	1.7	1.3	4.1	1.9
22	38	3.0	3.9	1.4	1.2	66	3.8	3.0	.95	.80	28	1.9
23	29	2.8	3.3	1.4	2.0	96	4.1	2.8	.80	.60	17	1.9
24	27	2.8	3.0	1.3	3.0	63	16	2.8	.80	.60	15	2.3
25	25	2.8	2.8	1.3	51	42	12	2.5	5.9	1.7	10	17
26	42	2.5	2.8	1.2	36	31	13	2.3	3.0	1.1	7.7	17
27	41	2.5	2.7	1.2	31	24	16	2.1	1.7	.60	6.3	13
28	32	2.5	2.7	1.2	31	20	16	1.9	2.8	.50	5.1	12
29	25	5.1	2.6	1.1	---	15	15	1.7	2.1	.50	4.4	8.8
30	19	2.5	2.5	1.1	---	13	12	1.7	1.4	.50	3.8	7.2
31	33	---	2.5	1.0	---	10	---	1.9	---	.40	3.5	---
TOTAL	752.9	289.9	219.8	58.1	177.09	1081	588.3	252.7	56.05	39.20	333.00	127.0
MEAN	24.3	9.66	7.09	1.87	6.32	34.9	19.6	8.15	1.87	1.26	10.7	4.23
MAX	62	62	33	2.5	51	96	65	26	5.9	5.1	28	17
MIN	5.5	2.5	2.1	1.0	.90	10	3.8	1.7	.80	.40	.30	1.3
CFSM	3.26	1.30	.95	.25	.85	4.68	2.63	1.09	.25	.17	1.43	.57
IN.	3.75	1.45	1.10	.29	.88	5.39	2.93	1.26	.28	.20	1.66	.63

CAL YR 1976 TOTAL 4709.50 MEAN 12.9 MAX 538 MIN 1.2 CFSM 1.73 IN 23.48
WTR YR 1977 TOTAL 3975.04 MEAN 10.9 MAX 96 MIN .30 CFSM 1.46 IN 19.82

01470729 SACONY CREEK ABOVE BOWERS, PA

LOCATION.--Lat 40°28'58", long 75°44'25", Berks County, Hydrologic Unit 02040203, at upstream side of bridge on Lyons-Bowers Road, at Bowers, 0.15 mi (0.24 km) upstream from left bank tributary and 1.1 mi (1.8 km) downstream from Little Sacony Creek.

DRAINAGE AREA.--5.70 mi^2 (14.76 km^2).

PERIOD OF RECORD.--October 1974 to September 1977 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 440 ft (134 m), from topographic map.

REMARKS.--Records fair except those for December and January, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 710 ft^3/s (20.1 m^3/s) Jan. 26, 1976, gage height, 6.50 ft (1.981 m); minimum, 0.58 ft^3/s (0.016 m^3/s) Sept. 12, 13, 1976, gage height, 3.63 ft (1.167 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 200 ft^3/s (5.66 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Dec. 7	0830	ice jam		5.85	1.783	Mar. 22	1600	395	11.2	5.98	1.823
Feb. 24	2245	209	5.92	5.52	1.682	July 12	1915	*703	19.9	*6.49	1.978

Minimum discharge, 1.4 ft^3/s (0.040 m^3/s) July 23, gage height, 3.96 ft (1.207 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.9	8.5	3.9	4.0	2.6	8.9	11	10	4.2	2.3	3.5	2.1
2	4.9	6.1	3.6	3.9	2.5	7.3	38	11	4.0	2.0	4.0	2.0
3	7.7	6.0	3.4	3.8	2.5	6.5	31	9.6	3.4	1.9	29	2.0
4	5.2	5.8	3.3	3.7	2.5	32	18	9.2	3.3	1.8	7.0	1.8
5	3.3	5.9	3.2	3.6	3.0	25	90	21	3.2	2.0	3.8	1.7
6	3.1	5.3	6.0	3.5	2.8	13	33	12	5.5	3.2	3.3	1.8
7	3.0	5.0	35	4.3	2.7	10	24	11	5.6	4.4	3.0	1.7
8	3.3	4.8	15	3.5	2.6	9.0	21	8.5	3.9	4.1	2.6	1.7
9	43	4.6	10	2.8	2.5	8.0	19	8.6	8.7	2.5	2.4	1.7
10	8.3	4.8	6.6	8.1	2.5	7.2	18	8.1	7.0	2.2	3.3	1.7
11	4.8	4.5	6.2	10	15	6.8	17	7.4	4.7	2.1	3.9	1.6
12	3.9	4.3	6.2	4.5	30	6.4	16	6.9	3.9	96	2.6	1.6
13	3.3	4.1	5.4	4.0	50	40	15	6.5	3.7	14	12	1.6
14	3.1	4.0	5.2	3.9	30	35	14	6.0	3.6	4.0	5.5	1.8
15	3.0	4.0	5.0	4.6	10	16	13	5.7	3.8	2.8	4.0	1.8
16	3.0	3.9	4.9	3.8	5.0	13	12	5.5	3.4	2.6	3.1	2.5
17	2.8	3.9	4.7	3.6	3.5	8.5	12	5.2	3.5	3.5	3.5	4.0
18	2.7	3.9	4.6	3.4	3.0	11	11	5.6	4.7	2.6	3.2	2.2
19	2.7	3.8	4.7	3.3	3.5	14	11	6.2	3.4	2.2	2.5	1.9
20	23	3.8	5.2	3.1	4.5	11	10	5.6	3.6	8.0	2.3	2.8
21	28	3.7	6.1	3.0	3.5	9.8	10	5.0	4.5	3.2	2.2	2.3
22	7.3	3.6	5.4	2.9	3.0	81	9.8	4.5	3.0	3.3	6.5	2.2
23	5.4	3.6	5.0	2.8	6.0	32	9.5	4.3	2.7	2.9	3.1	2.2
24	6.7	3.7	5.2	3.0	20	19	15	4.3	2.6	2.8	2.8	4.3
25	9.9	3.7	8.1	3.5	48	16	16	4.3	3.8	3.1	2.5	14
26	22	3.7	9.4	3.3	14	14	20	4.1	3.8	3.1	2.2	4.5
27	7.9	3.9	6.9	3.1	13	12	14	3.7	2.7	2.3	2.1	3.3
28	5.7	3.7	6.1	3.0	15	12	12	3.5	3.6	2.1	2.1	3.3
29	5.0	5.0	5.6	2.9	---	12	12	3.4	3.8	2.1	2.0	2.7
30	4.8	4.3	4.5	2.8	---	12	10	3.6	2.6	2.4	1.9	2.3
31	21	---	4.2	2.7	---	12	---	3.8	---	2.2	2.0	---
TOTAL	261.7	135.9	208.6	118.4	303.2	520.4	562.3	214.1	120.2	193.7	133.9	81.1
MEAN	8.44	4.53	6.73	3.82	10.8	16.8	18.7	6.91	4.01	6.25	4.32	2.70
MAX	43	8.5	35	10	50	81	90	21	8.7	96	29	14
MIN	2.7	3.6	3.2	2.7	2.5	6.4	9.5	3.4	2.6	1.8	1.9	1.6
CFSM	1.48	.80	1.18	.67	1.90	2.95	3.28	1.21	.70	1.10	.76	.47
IN.	1.71	.89	1.36	.77	1.98	3.40	3.67	1.40	.78	1.26	.87	.53

CAL YR 1976 TOTAL 3208.4 MEAN 8.77 MAX 197 MIN 1.1 CFSM 1.54 IN 20.94
WTR YR 1977 TOTAL 2853.5 MEAN 7.82 MAX 96 MIN 1.6 CFSM 1.37 IN 18.62

01470756 MAIDEN CREEK AT VIRGINVILLE, PA

LOCATION.--Lat 40°30'51", long 75°53'00", Berks County, Hydrologic Unit 02040203, on right bank 0.9 mi (1.4 km) downstream from Sacony Creek, 0.9 mi (1.4 km) southwest of Virginville, and 1.0 mi (1.6 km) upstream from Moselem Creek.

DRAINAGE AREA.--159 mi^2 (412 km^2).

PERIOD OF RECORD.--January 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 310 ft (94.5 m) from topographic map.

REMARKS.--Records good except those for winter period, which are fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,060 ft^3/s (200 m^3/s) Jan. 26, 1976, gage height, 11.51 ft (3.508 m); minimum, 26 ft^3/s (0.74 m^3/s) Sept. 9, 10, 15, 16, 1976; minimum gage height, 1.98 ft (0.604 m) July 19, 1974.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1972 reached a stage of 17.2 feet (5.24 m), from floodmarks, discharge, about 17,000 ft^3/s (481 m^3/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft^3/s (56.6 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Oct. 9	1800	2,270	64.3	6.10	1.859	Mar. 5	0100	3,230	91.5	7.31	2.228
Dec. 7	1230	2,190	62.0	5.99	1.826	Mar. 14	0215	2,420	68.5	6.30	1.920
Feb. 24	2230	*4,250	120	*8.59	2.618	Mar. 23	0045	4,090	116	8.39	2.557

Minimum discharge, 26 ft^3/s (0.74 m^3/s) Sept. 12, 13, 14, gage height, 2.02 ft (0.616 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	135	504	126	94	61	419	246	232	70	48	30	46
2	138	397	98	93	60	332	569	222	73	44	46	46
3	247	336	175	91	60	284	1050	211	61	39	96	50
4	269	291	138	89	59	1210	752	188	54	37	101	41
5	201	254	117	88	59	2150	1570	269	54	37	57	37
6	169	225	115	87	58	1020	1430	424	66	42	88	37
7	147	198	906	85	58	687	953	375	85	73	101	37
8	172	181	590	84	58	514	698	299	63	88	66	33
9	1530	165	379	83	58	410	524	284	91	59	138	32
10	860	159	280	82	58	353	433	246	112	46	115	30
11	451	150	243	80	64	307	362	211	70	41	184	29
12	349	141	215	79	72	276	315	188	59	68	115	26
13	265	129	188	78	80	1220	280	171	54	93	150	26
14	218	126	170	77	91	2130	250	156	50	46	129	27
15	178	120	160	76	83	1240	229	144	52	39	106	27
16	150	115	150	75	77	819	208	135	50	35	93	29
17	135	109	144	74	73	590	194	126	46	57	101	70
18	123	109	135	73	70	524	184	117	66	48	104	44
19	109	106	126	72	68	499	175	135	54	140	73	35
20	239	101	120	71	76	419	165	115	46	100	63	46
21	1350	98	120	70	70	383	156	106	80	80	57	54
22	625	96	120	69	66	1650	150	96	50	60	178	41
23	419	88	115	68	150	2810	147	91	42	42	112	42
24	357	85	110	67	800	1320	410	88	39	41	96	57
25	392	85	110	67	2170	819	509	85	59	59	85	272
26	703	83	110	66	667	605	401	83	138	88	73	328
27	559	85	105	66	509	480	401	75	61	44	63	229
28	428	83	105	65	625	419	340	73	80	37	61	178
29	344	138	100	64	---	370	319	68	101	33	54	135
30	284	96	98	63	---	319	261	63	59	33	50	112
31	651	---	96	62	---	280	---	66	---	33	48	---
TOTAL	12197	4853	5764	2358	6400	24858	13681	5142	1985	1730	2833	2196
MEAN	393	162	186	76.1	229	802	456	166	66.2	55.8	91.4	73.2
MAX	1530	504	906	94	2170	2810	1570	424	138	140	184	328
MIN	109	83	96	62	58	276	147	63	39	33	30	26
CFSM	2.47	1.02	1.17	.48	1.44	5.04	2.87	1.04	.42	.35	.58	.46
IN.	2.85	1.14	1.35	.55	1.50	5.82	3.20	1.20	.46	.40	.66	.51

CAL YR 1976 TOTAL 89768 MEAN 245 MAX 4850 MIN 26 CFSM 1.54 IN 21.00
WTR YR 1977 TOTAL 83997 MEAN 230 MAX 2810 MIN 26 CFSM 1.45 IN 19.65

01470764 MAIDEN CREEK NEAR LEESPORT, PA

LOCATION.--Lat 40°25'28", long 75°56'53", Berks County, Hydrologic Unit 02040203, 220 ft (67 m) upstream from Reading Railroad Bridge, 600 ft (183 m) upstream from Schuylkill River, 0.5 mi (0.8 km) downstream from Willow Creek and 1.9 mi (3.1 km) southeast of Leesport.

DRAINAGE AREA.--not available.

PERIOD OF RECORD.--January 1976 to current year.

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COLLECTING SAMPLE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
OCT 25...	1035	9813	190	7.6	10.0	7	10.5	94	--	0	21	10
NOV 15...	1415	9813	210	8.1	7.0	1	13.1	108	--	0	24	12
DEC 15...	1000	9813	250	7.5	3.0	100	11.7	86	--	0	28	4.0
JAN 05...	1330	9813	290	7.5	3.5	4	11.7	114	--	0	32	8.0
FEB 14...	1335	9813	250	7.5	4.5	2	13.1	110	0	0	32	7.5
MAR 21...	1310	9813	190	7.3	9.0	10	11.1	74	0	0	22	4.5
APR 11...	1000	9813	180	7.7	9.0	9	11.5	82	0	0	24	5.5
MAY 02...	1025	9813	280	7.5	14.0	4	9.5	90	--	0	27	5.5
JUN 21...	1045	9813	290	8.2	18.5	3	7.6	118	--	0	34	8.0
JUL 07...	1415	9813	310	8.0	19.5	1	7.2	134	--	0	36	11
SEP 19...	1055	9813	340	9.0	19.5	5	6.7	130	--	0	30	13

DATE	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	TOTAL FILTRABLE RESIDUE (MG/L)	TOTAL NONFILTRABLE RESIDUE (MG/L)	TOTAL RESIDUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)
OCT 25...	50	20	9.0	144	--	--	2.5	.04	.07	.11	20	370
NOV 15...	72	20	10	170	--	--	4.1	.03	.09	.10	10	100
DEC 15...	80	26	11	168	--	--	3.2	.03	.19	.10	10	380
JAN 05...	98	20	11	174	--	--	3.6	.05	.13	.08	<10	150
FEB 14...	88	24	13	180	--	--	3.2	.04	.11	.79	<10	250
MAR 21...	50	18	9.0	122	--	--	5.6	.03	.13	.09	20	820
APR 11...	56	20	11	142	14	156	4.1	.03	.15	.05	20	300
MAY 02...	82	20	11	158	--	--	3.2	.03	.18	.04	<10	250
JUN 21...	108	28	13	200	--	--	2.5	.05	.12	.11	<10	180
JUL 07...	108	20	13	--	--	--	1.6	.08	.17	.08	<10	160
SEP 19...	110	18	13	218	--	--	1.4	.06	.09	.10	10	300

01470779 TULPEHOCKEN CREEK NEAR BERNVILLE, PA

LOCATION.--Lat 40°24'48", long 76°10'19", Berks County, Hydrologic Unit 02040203, on left bank 30 ft (9.1 m) downstream from Kricks Mill Bridge, 0.4 mi (0.6 km) upstream from Mill Creek, and 3.5 mi (5.6 km) west of Bernville.

DRAINAGE AREA.--66.5 mi^2 (172.2 km^2).

PERIOD OF RECORD.--November 1974 to current year.

GAGE.--Water-stage recorder. Datum of gage is 311.26 ft (94.872 m) above mean sea level.

REMARKS.--Records good except those for winter periods, which are fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,220 ft^3/s (91.2 m^3/s) Jan. 26, 1976, gage height, 8.01 ft (2.441 m), from rating curve extended above 740 ft^3/s (21 m^3/s) on basis of contracted-opening measurement of peak flow; minimum, 31 ft^3/s (0.878 m^3/s) Feb. 6, 1977, gage height, 1.59 ft (0.485 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1972 reached a stage of about 9.5 ft (2.9 m), from information by local resident, discharge not determined.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 950 ft^3/s (26.9 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Oct. 21	0515	1,100	31.2	*5.43	1.655	Mar. 22	2030	*1,120	31.7	5.16	1.573

Minimum discharge, 31 ft^3/s (0.878 m^3/s) Feb. 6, gage height, 1.59 ft (0.485 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	90	225	97	80	50	126	135	106	67	56	50	48
2	101	218	96	80	50	116	232	105	64	54	49	61
3	289	209	93	77	49	109	264	103	63	64	66	101
4	214	202	89	76	49	310	198	103	71	66	55	55
5	176	194	87	74	48	330	449	117	64	55	51	52
6	161	185	85	74	48	214	323	106	69	92	59	53
7	149	179	264	73	49	187	261	100	67	116	62	51
8	154	171	155	72	49	167	239	98	62	78	61	48
9	634	151	129	71	48	144	211	95	68	77	49	46
10	388	147	122	69	49	135	198	103	83	76	48	46
11	284	142	119	68	52	128	185	103	75	63	50	44
12	240	138	116	67	54	122	165	101	64	105	47	43
13	216	146	111	66	58	213	153	100	62	163	99	43
14	200	146	106	65	61	291	146	85	62	74	74	43
15	182	144	105	65	57	202	138	84	67	72	57	42
16	167	128	105	64	53	187	144	83	61	69	52	46
17	161	122	103	63	52	169	140	80	62	66	56	54
18	155	121	100	62	54	175	136	78	78	64	52	46
19	147	117	111	59	56	157	131	78	94	60	50	44
20	284	116	111	60	56	144	117	78	77	69	47	45
21	664	126	101	58	54	146	114	77	77	61	46	44
22	302	124	94	57	57	416	111	76	64	57	67	44
23	266	109	92	56	98	397	109	75	61	63	52	43
24	251	106	90	55	205	274	155	73	60	67	53	52
25	259	106	88	54	314	232	177	72	69	62	49	135
26	375	106	91	54	153	209	146	71	66	62	47	93
27	261	105	88	53	142	191	126	69	59	54	55	76
28	242	101	88	52	159	185	129	77	64	52	59	75
29	225	119	87	52	---	165	131	69	64	52	47	64
30	200	105	85	51	---	153	111	66	57	52	46	60
31	303	---	83	51	---	142	---	67	---	51	51	---
TOTAL	7740	4308	3291	1978	2222	6136	5274	2698	2021	2172	1706	1697
MEAN	250	144	106	63.8	79.4	198	176	87.0	67.4	70.1	55.0	56.6
MAX	664	225	264	80	314	416	449	117	94	163	99	135
MIN	90	101	83	51	48	109	109	66	57	51	46	42
CFSM	3.76	2.17	1.59	.96	1.19	2.98	2.65	1.31	1.01	1.05	.83	.85
IN.	4.33	2.41	1.84	1.11	1.24	3.43	2.95	1.51	1.13	1.21	.95	.95

CAL YR 1976 TOTAL 52647 MEAN 144 MAX 1630 MIN 52 CFSM 2.17 IN 29.45
WTR YR 1977 TOTAL 41243 MEAN 113 MAX 664 MIN 42 CFSM 1.70 IN 23.07

01470800 TULPEHOCKEN CREEK AT BERNVILLE, PA

LOCATION.--Lat 40°25'32", long 75°06'51", Berks County, Hydrologic Unit 02040203, at single-span concrete bridge on Legislative Route 06074, 0.5 mi (0.8 km) south of Bernville, and 600 ft (183 m) above confluence with Northkill Creek.

DRAINAGE AREA.--84.8 mi² (220 km²).

PERIOD OF RECORD.--June 1972 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	IMME-DIATE COLI-FORM (COL. PER 100 ML)	FECAL COLI-FORM .7UM-MF (COL./ 100 ML)	FECAL STREP-TOCOCCI KF AGAR (COL. PER 100 ML)	ALKA-LINITY AS CACO3 (MG/L)	TOTAL NITRATE (N) (MG/L)
OCT										
13...	1030	490	7.5	11.0	10.2	6700	2800	1100	167	5.5
NOV										
17...	1010	460	8.0	6.0	12.2	510	150	160	183	6.0
DEC										
14...	1245	420	7.9	2.0	14.8	150	67	100	184	5.9
JAN										
11...	1030	480	8.1	.0	--	130	30	130	189	5.6
FEB										
15...	1030	520	7.9	3.5	12.0	970	480	B5600	166	4.9
MAR										
04...	2015	370	7.4	7.0	--	20000	B10000	65000	107	4.1
05...	1130	375	7.6	7.0	--	B8000	B3000	B100000	108	4.1
07...	1115	419	7.8	6.5	--	800	B140	1900	151	5.0
APR										
20...	1055	395	8.1	14.0	11.0	1100	250	2100	168	5.4
MAY										
10...	1145	460	8.0	10.0	7.2	500	460	600	172	5.3
JUN										
15...	1205	520	8.1	18.5	9.2	14000	6700	6500	340	5.3
JUL										
13...	1210	300	7.5	23.0	7.4	>100000	P250000	>100000	96	3.6
AUG										
10...	1330	480	8.1	24.0	9.2	4600	2200	2700	177	5.0
SEP										
21...	1120	475	7.8	19.0	8.8	6800	B1900	5200	178	4.8

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL ORGANIC NITRO-GEN (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL ORTHO PHOS-PHORUS (P) (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
OCT									
13...	.03	5.5	.03	.25	.28	5.8	.10	.05	3.0
NOV									
17...	.04	6.0	.04	.24	.28	6.3	.05	.03	1.6
DEC									
14...	.04	5.9	.08	.00	.08	6.0	.04	.02	2.1
JAN									
11...	.04	5.6	.09	.15	.24	5.8	.05	.03	2.3
FEB									
15...	.07	5.0	.39	.52	.91	5.9	.12	.07	4.2
MAR									
04...	.11	4.2	.54	4.8	5.3	9.5	1.3	.13	7.8
05...	.05	4.1	.27	1.4	1.7	5.8	.36	.08	37
07...	.04	5.0	.06	.54	.60	5.6	.10	.03	2.3
APR									
20...	.04	5.4	.03	.47	.50	5.9	.03	.03	1.3
MAY									
10...	.05	5.3	.05	.23	.28	5.6	.04	.02	1.8
JUN									
15...	.10	5.4	.05	.58	.63	6.0	.16	.07	6.3
JUL									
13...	.11	3.7	.14	5.3	5.4	9.1	.71	.15	12
AUG									
10...	.02	5.0	.03	.36	.39	5.4	.11	.06	5.5
SEP									
21...	.04	4.8	.04	.17	.21	5.0	.10	.07	7.6

01470800 TULPEHOCKEN CREEK AT BERNVILLE, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	TOTAL NITRITE PLUS NITRATE IN BOT. MAT. (MG/KG)	TOTAL AMMONIA NITROGEN IN BOTTOM MAT. (MG/KG)	TOTAL KJEL. NITROGEN IN BOTTOM MAT. (MG/KG)	TOTAL PHOSPHORUS IN BOTTOM MATERIAL (MG/KG)	TOTAL ARSENIC IN BOTTOM MATERIAL (UG/G)	TOTAL CADMIUM IN BOTTOM MATERIAL (UG/G)	TOTAL CHROMIUM IN BOTTOM MATERIAL (UG/G)	TOTAL COBALT IN BOTTOM MATERIAL (UG/G)	TOTAL COPPER IN BOTTOM MATERIAL (UG/G)
APR 20...	1055	.0	.4	1200	62	31	0	1	0	0
AUG 10...	1330	--	--	--	--	24	--	--	--	--

DATE	TOTAL IRON IN BOTTOM MATERIAL (UG/G)	TOTAL LEAD IN BOTTOM MATERIAL (UG/G)	TOTAL MANGANESE IN BOTTOM MATERIAL (UG/G)	TOTAL MERCURY IN BOTTOM MATERIAL (UG/G)	TOTAL NICKEL IN BOTTOM MATERIAL (UG/G)	TOTAL ZINC IN BOTTOM MATERIAL (UG/G)	ORGANIC CARBON IN BOTTOM MATERIAL (C) (G/KG)	INORGANIC CARBON IN BOTTOM MATERIAL (G/KG)	PCB IN BOTTOM MATERIAL (UG/KG)	ALDRIN IN BOTTOM MATERIAL (UG/KG)
APR 20...	60	10	370	.1	0	10	12	1.3	62	.0
AUG 10...	--	--	--	--	--	--	--	--	--	--

DATE	CHLORDANE IN BOTTOM MATERIAL (UG/KG)	DDD IN BOTTOM MATERIAL (UG/KG)	DDE IN BOTTOM MATERIAL (UG/KG)	DDT IN BOTTOM MATERIAL (UG/KG)	DIELDRIN IN BOTTOM MATERIAL (UG/KG)	ENDRIN IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE IN BOTTOM MATERIAL (UG/KG)	LINDANE IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE IN BOTTOM MATERIAL (UG/KG)
APR 20...	10	.9	1.0	.0	1.0	.0	.0	.0	.0	0
AUG 10...	--	--	--	--	--	--	--	--	--	--

01470825 NORTHKILL CREEK AT BERNVILLE, PA

LOCATION.--Lat 40°25'50", long 76°06'51", Berks County, Hydrologic Unit 02040203, at a retaining wall 670 ft (204 m) upstream from highway bridge on county road 0.2 mi (0.3 km) from Bernville, and 0.4 mi (0.6 km) from mouth.

DRAINAGE AREA.--42.0 mi^2 (109 km^2).

PERIOD OF RECORD.--Chemical analyses: June 1972 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	IMME-DIATE COLI-FORM (COL. PER 100 ML)	FECAL COLI-FORM .7UM-MF (COL./100 ML)	FECAL STREP-TOCOCCI KF AGAR (COL. PER 100 ML)	ALKA-LINITY AS CACO3 (MG/L)	TOTAL NITRATE (N) (MG/L)
OCT										
13...	1000	148	6.9	10.0	10.6	5500	1200	920	--	3.6
NOV										
17...	1030	130	7.9	4.0	13.0	580	170	190	38	2.3
DEC										
14...	1230	150	6.8	.0	14.4	680	150	E460	30	3.2
JAN										
11...	1100	150	7.9	.0	--	480	100	150	41	2.1
FEB										
15...	1000	155	7.6	.5	13.0	4000	350	88400	26	3.0
MAR										
04...	2045	118	6.6	7.0	--	84000	81000	9300	13	1.7
05...	1145	112	7.0	6.5	--	1100	290	11000	12	2.5
07...	1130	118	7.5	5.5	--	630	830	81300	16	3.1
APR										
20...	1105	125	8.5	14.0	12.0	550	180	180	34	1.8
MAY										
10...	1200	140	7.6	10.0	11.8	2100	410	7100	28	2.0
JUN										
15...	1215	210	8.2	17.0	10.1	6200	5300	7600	94	1.3
JUL										
13...	1230	141	7.3	25.0	8.1	82000	37000	3700	29	1.5
AUG										
10...	1345	200	8.4	26.0	13.8	900	1100	580	63	.92
SEP										
21...	1130	220	8.0	19.5	11.4	5500	83600	11000	76	.74

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL ORGANIC NITRO-GEN (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL ORTHO PHOS-PHORUS (P) (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
OCT									
13...	.01	3.6	.01	.17	.18	3.8	.07	.02	2.5
NOV									
17...	.01	2.3	.01	.04	.05	2.4	.03	.01	1.0
DEC									
14...	.01	3.2	.03	.07	.10	3.3	.03	.01	2.0
JAN									
11...	.01	2.1	.09	.13	.22	2.3	.05	.02	3.4
FEB									
15...	.05	3.0	.26	.57	.83	3.8	.09	.03	--
MAR									
04...	.03	1.7	.17	1.6	1.8	3.5	.31	.04	3.6
05...	.02	2.5	.08	.63	.71	3.2	.09	.02	15
07...	.01	3.1	.04	.34	.38	3.5	.05	.01	1.4
APR									
20...	.01	1.8	.02	.28	.30	2.1	.03	.02	5.2
MAY									
10...	.01	2.0	.04	.21	.25	2.3	.02	.00	3.0
JUN									
15...	.04	1.3	.10	.75	.85	2.2	.12	.03	5.2
JUL									
13...	.03	1.5	.29	1.0	1.3	2.8	.22	.03	8.1
AUG									
10...	.02	.94	.02	.43	.45	1.4	.06	.03	4.2
SEP									
21...	.01	.75	.04	.41	.45	1.2	.10	.03	8.2

01470825 NORTHKILL CREEK AT BERNVILLE, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	TOTAL NITRITE PLUS NITRATE IN BOT. MAT. (MG/KG)	TOTAL AMMONIA NITROGEN IN BOTTOM MAT. (MG/KG)	TOTAL KJEL. NITROGEN IN BOTTOM MAT. (MG/KG)	TOTAL PHOSPHORUS IN BOTTOM MATERIAL (MG/KG)	TOTAL ARSENIC IN BOTTOM MATERIAL (UG/G)	TOTAL CADMIUM IN BOTTOM MATERIAL (UG/G)	TOTAL CHROMIUM IN BOTTOM MATERIAL (UG/G)	TOTAL COBALT IN BOTTOM MATERIAL (UG/G)	TOTAL COPPER IN BOTTOM MATERIAL (UG/G)
APR										
20...	1105	3.3	64	1300	40	5	0	2	0	0
AUG										
10...	1345	--	--	--	--	16	--	--	--	--

DATE	TOTAL IRON IN BOTTOM MATERIAL (UG/G)	TOTAL LEAD IN BOTTOM MATERIAL (UG/G)	TOTAL MANGANESE IN BOTTOM MATERIAL (UG/G)	TOTAL MERCURY IN BOTTOM MATERIAL (UG/G)	TOTAL NICKEL IN BOTTOM MATERIAL (UG/G)	TOTAL ZINC IN BOTTOM MATERIAL (UG/G)	ORGANIC CARBON IN BOTTOM MATERIAL (C) (G/KG)	INORGANIC CARBON IN BOTTOM MATERIAL (G/KG)	PCB IN BOTTOM MATERIAL (UG/KG)	ALDRIN IN BOTTOM MATERIAL (UG/KG)
APR										
20...	30	10	310	.0	1	0	20	.6	43	.0
AUG										
10...	--	--	--	--	--	--	--	--	--	--

DATE	CHLORDANE IN BOTTOM MATERIAL (UG/KG)	DDD IN BOTTOM MATERIAL (UG/KG)	DDE IN BOTTOM MATERIAL (UG/KG)	DDT IN BOTTOM MATERIAL (UG/KG)	DIELDRIN IN BOTTOM MATERIAL (UG/KG)	ENDRIN IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE IN BOTTOM MATERIAL (UG/KG)	LINDANE IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE IN BOTTOM MATERIAL (UG/KG)
APR										
20...	8	3.1	2.4	.6	2.0	.0	.0	.0	.0	0
AUG										
10...	--	--	--	--	--	--	--	--	--	--

01470960 TULPEHOCKEN CREEK AT BLUE MARSH DAMSITE NEAR READING, PA

LOCATION.--Lat 40°22'14", long 76°01'32", Berks County, Hydrologic Unit 02040203, on right bank 1 mi (1.6 km) upstream from Rebers Bridge and Plum Creek, 1 mi (1.6 km) east of Blue Marsh, 3 mi (4.8 km) north of Sinking Spring, and 5.5 mi (8.8 km) northwest of Reading. Water-quality sampling site at Rebers bridge 1.0 mi (1.6 km) downstream.

DRAINAGE AREA.--175 mi² (453 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1965 to current year.

REVISED RECORDS.--WDR PA-72: 1969-1971 (M).

GAGE.--Water-stage recorder. Datum of gage is 230.06 ft (70.122 m) above mean sea level (Western Berks Water Authority benchmark). Prior to Nov. 25, 1974, water-stage recorder at site 0.3 mi (0.5 km) downstream at same datum.

REMARKS.--Records good except those for winter periods, which are fair.

AVERAGE DISCHARGE.--12 years, 272 ft³/s (7.70 m³/s), 21.10 in/yr (536 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,100 ft³/s (456 m³/s) June 22, 1972, gage height, 18.7 ft (5.70 m), from floodmarks, from rating curve extended above 2,600 ft³/s (74 m³/s) on basis of runoff comparison with downstream station; minimum, 22 ft³/s (0.62 m³/s) Sept. 11, 12, 13, 1966; minimum gage height, 1.45 ft (0.442 m) July 29, 30, 31, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,500 ft³/s (42.5 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Oct. 10	0415	*1,840	52.1	*5.42	1.652
Oct. 21	1515	1,740	49.3	5.30	1.615
Feb. 25	0530	1,560	44.2	5.07	1.545
Mar. 23	1030	1,760	49.8	5.32	1.622
Apr. 6	0300	1,560	44.2	5.07	1.545

Minimum discharge, 9.6 ft³/s (0.272 m³/s) Aug. 30, gage height, 2.37 ft (0.722 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	242	764	140	140	95	426	356	264	141	50	68	66
2	238	632	140	140	94	361	436	247	141	48	110	37
3	487	568	135	140	94	306	1120	251	125	48	50	156
4	725	514	135	135	93	526	917	230	125	56	52	96
5	498	459	130	130	92	1230	1280	311	128	50	56	58
6	410	410	130	130	90	1020	1480	301	131	73	52	68
7	361	372	632	130	90	498	1190	301	180	218	38	58
8	377	346	778	125	90	442	945	251	128	113	43	50
9	1280	306	431	125	89	513	756	226	141	75	46	52
10	1730	287	366	125	88	421	645	218	194	67	44	46
11	1350	278	330	120	93	361	603	206	148	50	207	38
12	846	251	301	120	100	316	513	198	128	141	37	37
13	651	238	273	120	105	521	454	184	104	377	117	37
14	556	238	260	120	115	1080	410	165	92	152	176	38
15	470	238	240	120	105	1000	366	148	122	98	79	40
16	404	222	218	120	100	827	335	148	100	86	52	42
17	356	198	210	120	98	678	320	141	87	94	52	90
18	340	194	194	115	97	573	306	141	122	83	74	74
19	287	187	187	115	105	555	292	141	176	91	46	54
20	388	180	190	110	110	477	287	145	119	156	41	63
21	1560	180	195	110	100	432	251	141	152	70	38	68
22	1420	180	180	110	97	548	238	145	89	56	100	67
23	935	165	175	110	252	1680	234	141	73	65	85	60
24	700	152	170	105	418	1460	316	148	65	59	53	67
25	706	152	170	105	1350	1110	618	145	65	107	52	341
26	948	148	165	105	808	861	442	148	110	54	41	283
27	865	145	160	100	513	690	377	138	67	45	39	208
28	719	141	155	100	585	597	335	152	70	42	51	214
29	618	140	150	98	---	591	377	155	110	40	43	140
30	532	140	150	97	---	448	311	131	63	40	25	113
31	725	---	145	96	---	378	---	138	---	36	53	---
TOTAL	21724	8425	7235	3636	6066	20926	16510	5799	3496	2740	2020	2761
MEAN	701	281	233	117	217	675	550	187	117	88.4	65.2	92.0
MAX	1730	764	778	140	1350	1680	1480	311	194	377	207	341
MIN	238	140	130	96	88	306	234	131	63	36	25	37
CFSM	4.01	1.61	1.33	.67	1.24	3.86	3.14	1.07	.67	.51	.37	.53
IN.	4.62	1.79	1.54	.77	1.29	4.45	3.51	1.23	.74	.58	.43	.59

CAL YR 1976 TOTAL 127634 MEAN 349 MAX 5770 MIN 79 CFSM 1.99 IN 27.13
WTR YR 1977 TOTAL 101338 MEAN 278 MAX 1730 MIN 25 CFSM 1.59 IN 21.54

01470960 TULPEHOCKEN CREEK AT BLUE MARSH DAMSITE NEAR READING, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1968 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1968 to current year.

REMARKS.--Temperature recorder located at gaging station 1.0 mi (1.6 km) upstream from sampling site.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 34.0°C Oct. 2, 1968; minimum, freezing point on several days during December 1970, January, March 1971, February 1975.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 29.0°C Jun. 28, Jul. 17-19; minimum, freezing point on many days.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM .7UM-MF (COL./100 ML)	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML)	ALKALINITY AS CACO3 (MG/L)
OCT										
13...	1100	658	358	7.4	11.0	7.2	7800	1400	1100	115
NOV										
17...	1100	195	360	8.2	4.5	13.6	E330	110	92	131
DEC										
14...	1215	730	320	7.4	1.0	15.0	1500	300	E3300	130
JAN										
11...	1130	537	360	8.1	.0	--	660	140	620	134
FEB										
15...	1130	882	300	7.5	1.0	12.8	1400	420	B10000	89
MAR										
04...	2105	1000	248	7.3	6.5	--	7800	2900	B25000	66
05...	1200	1290	220	7.5	7.0	--	B7000	B2400	B100000	57
07...	1200	501	260	7.6	7.0	--	1100	B170	960	79
APR										
20...	1145	239	325	8.3	14.5	13.4	830	130	160	124
MAY										
10...	1230	218	340	8.1	10.0	--	1900	320	B40000	122
JUN										
15...	1130	132	480	8.3	19.5	9.8	5800	2100	2700	274
JUL										
13...	1040	639	250	7.5	22.5	7.6	>100000	48000	>100000	74
AUG										
10...	1145	35	430	8.0	24.5	8.4	900	700	1600	153
SEP										
21...	1000	71	405	7.7	19.5	8.3	5500	1700	2700	154

DATE	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ORTHO PHOSPHORUS (P) (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
OCT										
13...	4.4	.02	4.4	.02	.16	.18	4.6	.10	.06	2.2
NOV										
17...	4.8	.03	4.8	.04	.26	.30	5.1	.08	.05	1.0
DEC										
14...	4.7	.03	4.7	.10	.03	.13	4.8	.09	.04	3.1
JAN										
11...	4.5	.03	4.5	.11	.25	.36	4.9	.08	.05	2.5
FEB										
15...	3.5	.06	3.6	.49	.61	1.1	4.7	.16	.09	6.3
MAR										
04...	3.1	.04	3.1	.26	.84	1.1	4.2	.25	.06	8.8
05...	2.9	.05	2.9	.37	1.6	2.0	4.9	.39	.09	7.3
07...	3.9	.04	3.9	.07	.35	.42	4.3	.08	.03	1.5
APR										
20...	4.1	.04	4.1	.04	.36	.40	4.5	.03	.03	3.3
MAY										
10...	3.9	.03	3.9	.06	.42	.48	4.4	.06	.03	3.4
JUN										
15...	4.1	.09	4.2	.12	.69	.81	5.0	.19	.10	5.6
JUL										
13...	2.4	.07	2.5	.30	1.7	2.0	4.5	.13	.09	11
AUG										
10...	3.8	.04	3.8	.07	.35	.42	4.2	.13	.08	5.1
SEP										
21...	3.5	.03	3.5	.05	.38	.43	3.9	.13	.09	7.2

01470960 TULPEHOCKEN CREEK AT BLUE MARSH DAMSITE NEAR READING, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	TOTAL NITRITE PLUS NITRATE IN BOT. MAT. (MG/KG)	TOTAL AMMONIA NITROGEN IN BOTTOM MAT. (MG/KG)	TOTAL KJEL. NITROGEN IN BOTTOM MAT. (MG/KG)	TOTAL PHOSPHORUS IN BOTTOM MATERIAL (MG/KG)	TOTAL ARSENIC IN BOTTOM MATERIAL (UG/G)	TOTAL CADMIUM IN BOTTOM MATERIAL (UG/G)	TOTAL CHROMIUM IN BOTTOM MATERIAL (UG/G)	TOTAL COBALT IN BOTTOM MATERIAL (UG/G)	TOTAL COPPER IN BOTTOM MATERIAL (UG/G)
APR 20...	1145	5.0	21	1700	56	16	0	2	1	0
AUG 10...	1145	--	--	--	--	17	--	--	--	--

DATE	TOTAL IRON IN BOTTOM MATERIAL (UG/G)	TOTAL LEAD IN BOTTOM MATERIAL (UG/G)	TOTAL MANGANESE IN BOTTOM MATERIAL (UG/G)	TOTAL MERCURY IN BOTTOM MATERIAL (UG/G)	TOTAL NICKEL IN BOTTOM MATERIAL (UG/G)	TOTAL ZINC IN BOTTOM MATERIAL (UG/G)	ORGANIC CARBON IN BOTTOM MATERIAL (C) (G/KG)	INORGANIC CARBON IN BOTTOM MATERIAL (G/KG)	PCB IN BOTTOM MATERIAL (UG/KG)	ALDRIN IN BOTTOM MATERIAL (UG/KG)
APR 20...	940	70	440	.0	1	10	25	2.7	85	.0
AUG 10...	--	--	--	--	--	--	--	--	--	--

DATE	CHLORDANE IN BOTTOM MATERIAL (UG/KG)	DDD IN BOTTOM MATERIAL (UG/KG)	DDE IN BOTTOM MATERIAL (UG/KG)	DDT IN BOTTOM MATERIAL (UG/KG)	DIELDRIN IN BOTTOM MATERIAL (UG/KG)	ENDRIN IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE IN BOTTOM MATERIAL (UG/KG)	LINDANE IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE IN BOTTOM MATERIAL (UG/KG)
APR 20...	11	2.6	1.8	1.0	4.0	.0	.0	.0	.0	0
AUG 10...	--	--	--	--	--	--	--	--	--	--

01470960 TULPEHOCKEN CREEK AT BLUE MARSH DAMSITE NEAR READING, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	14.0	13.5	13.5	10.0	8.5	9.0	---	---	---	.5	.0	.0
2	14.5	14.0	14.0	8.5	7.0	8.0	---	---	---	1.0	.5	.5
3	14.5	14.5	14.5	9.0	8.5	8.5	---	---	---	1.0	1.0	1.0
4	16.0	14.5	15.0	10.0	9.0	9.0	---	---	---	1.0	1.0	1.0
5	16.0	14.5	14.5	9.0	8.0	8.5	---	---	---	1.0	.5	1.0
6	16.0	14.5	15.0	8.0	7.0	7.0	1.5	.0	.5	1.0	.5	.5
7	16.5	15.0	15.5	7.5	7.0	7.0	3.0	1.5	2.5	1.0	.5	.5
8	16.5	16.0	16.0	7.5	6.0	7.0	2.5	1.5	2.0	.5	.5	.5
9	17.0	16.0	16.5	6.0	4.5	5.0	1.5	.5	1.5	.5	.5	.5
10	17.0	13.5	15.5	6.5	5.0	5.5	3.5	1.5	2.5	.5	.5	.5
11	13.5	12.5	12.5	6.5	6.0	6.5	4.5	3.0	3.5	.5	.5	.5
12	12.5	11.0	12.0	6.5	5.5	6.0	5.0	4.0	4.5	.5	.5	.5
13	13.0	11.5	12.0	6.0	4.5	5.0	5.0	1.0	2.5	.5	.5	.5
14	13.5	13.0	13.0	6.0	4.0	5.0	1.0	.0	0.5	.5	.5	.5
15	13.5	11.5	12.0	6.0	4.5	5.0	2.0	.0	1.0	---	---	---
16	13.5	12.5	13.0	6.0	4.0	5.0	3.0	1.5	2.0	---	---	---
17	10.5	11.0	12.0	5.0	3.5	4.5	3.5	2.5	3.0	---	---	---
18	11.0	9.5	10.5	6.0	4.5	5.0	4.0	2.0	3.0	.0	.0	.0
19	10.5	8.5	9.0	6.5	4.5	5.5	3.0	2.0	2.5	.0	.0	.0
20	11.5	9.5	10.0	6.0	5.0	5.5	4.5	2.5	3.5	.0	.0	.0
21	11.5	11.0	11.0	5.5	4.5	5.0	4.5	.5	2.0	.5	.0	.0
22	11.0	10.0	10.5	4.5	3.5	4.0	.5	.5	.0	.5	.0	.0
23	10.0	9.0	9.5	3.5	2.0	3.0	1.0	.0	.5	.5	.0	.0
24	10.0	9.5	10.0	3.5	2.0	2.5	1.0	.0	.5	.5	.0	.0
25	11.0	10.0	10.5	3.5	2.0	3.0	---	---	---	.0	.0	.0
26	11.0	10.5	11.0	5.0	2.5	3.5	---	---	---	.0	.0	.0
27	10.0	8.5	9.0	7.0	4.5	5.5	---	---	---	.0	.0	.0
28	8.5	7.5	8.0	8.0	6.0	7.0	---	---	---	.0	.0	.0
29	8.5	7.5	8.0	8.0	4.0	6.5	---	---	---	.0	.0	.0
30	8.5	8.0	8.5	---	---	---	---	---	---	.0	.0	.0
31	10.0	8.5	9.5	---	---	---	---	---	---	.0	.0	.0
MONTH	17.0	7.5	12.0	10.0	2.0	6.0	5.0	.5	1.5	1.0	.0	.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	1.0	1.0	1.0	6.0	5.5	6.0	12.5	10.0	12.0	15.5	11.0	14.0
2	1.0	1.0	1.0	6.5	4.5	5.5	11.5	8.0	10.0	16.0	13.5	15.5
3	1.0	1.0	1.0	7.0	5.0	6.0	11.0	7.5	10.0	19.0	15.0	16.5
4	1.0	1.0	1.0	7.0	5.5	7.0	11.5	8.0	11.0	19.0	14.0	15.0
5	1.0	1.0	1.0	8.0	7.0	7.0	8.0	7.0	8.5	16.0	13.0	14.0
6	1.0	1.0	1.0	8.5	8.0	8.0	7.5	7.5	8.5	19.5	15.5	17.0
7	1.0	1.0	1.0	8.0	7.5	8.0	8.0	7.0	8.5	19.0	17.5	18.0
8	1.5	1.5	1.0	8.5	7.0	7.5	8.5	7.5	9.0	18.5	15.0	17.0
9	---	---	---	9.0	7.0	8.0	8.5	7.0	8.5	17.0	12.5	14.0
10	---	---	---	10.5	8.5	9.0	10.0	7.5	9.0	13.5	11.5	12.5
11	---	---	---	11.5	9.0	10.0	12.5	9.5	11.5	16.5	12.0	14.0
12	---	---	---	11.5	10.0	10.5	15.0	12.0	14.0	18.5	13.5	16.0
13	---	---	---	11.5	11.0	11.5	16.0	13.5	15.5	21.0	16.5	18.0
14	---	---	---	11.5	10.0	11.0	16.0	14.5	16.0	20.5	16.5	18.5
15	---	---	---	10.0	10.0	10.0	15.0	11.5	14.0	20.5	15.5	18.0
16	---	---	---	10.5	10.0	10.5	14.5	11.5	13.5	21.0	16.0	18.0
17	---	---	---	10.0	8.0	9.0	14.5	11.0	13.5	23.0	17.0	19.5
18	---	---	---	8.5	6.5	7.5	15.0	11.5	14.0	24.5	19.5	21.5
19	---	---	---	7.5	5.5	6.0	14.5	12.5	14.5	24.0	20.5	22.5
20	---	---	---	7.0	5.5	6.0	15.0	12.5	14.5	25.0	21.0	23.0
21	---	---	---	6.0	5.0	5.5	16.0	12.5	15.0	25.5	21.0	23.5
22	---	---	---	8.0	6.0	8.0	19.0	14.0	17.0	25.5	21.0	23.5
23	---	---	---	6.0	5.5	6.5	19.0	16.0	18.5	25.0	21.0	23.0
24	---	---	---	6.5	5.5	7.0	18.0	13.0	16.0	25.0	21.5	23.0
25	---	---	---	6.0	5.0	6.5	13.5	11.0	13.0	25.0	21.5	23.0
26	---	---	---	7.0	5.5	7.0	13.5	11.5	13.0	26.0	21.5	23.5
27	---	---	---	9.0	7.0	8.5	13.0	10.5	12.5	26.0	20.5	23.0
28	---	---	---	9.5	8.0	10.0	13.0	11.0	12.5	26.0	21.0	23.5
29	---	---	---	12.5	8.0	10.5	12.5	9.5	11.5	26.0	22.0	24.0
30	---	---	---	16.0	12.0	14.5	14.0	10.5	13.0	25.0	20.0	21.0
31	---	---	---	15.0	11.5	14.5	---	---	---	20.5	19.0	20.0
MONTH	1.5	.5	.5	16.0	4.5	8.5	19.0	7.0	12.5	26.0	11.0	19.0

01470960 TULPEHOCKEN CREEK AT BLUE MARSH DAMSITE NEAR READING, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	21.5	19.0	19.5	23.5	20.0	21.5	24.5	23.0	23.5	24.0	22.0	23.0
2	25.0	20.5	22.5	22.5	19.5	21.0	---	---	---	24.0	22.5	23.0
3	24.5	21.0	22.5	23.5	18.5	21.5	---	---	---	24.5	22.0	23.0
4	24.5	18.5	21.5	24.0	19.0	21.5	---	---	---	23.0	21.5	22.0
5	24.0	20.5	22.0	21.5	19.5	21.0	26.5	22.0	24.0	23.0	21.0	22.0
6	22.5	19.0	20.0	24.5	20.5	23.0	26.5	23.0	25.0	23.5	21.5	22.0
7	19.0	18.5	18.5	25.0	21.5	23.0	26.0	23.5	24.5	23.5	20.5	21.5
8	22.5	17.0	19.5	24.0	23.0	23.5	27.0	23.5	25.0	22.0	19.5	20.5
9	22.0	16.5	19.0	26.0	22.0	24.0	27.0	23.5	25.0	21.5	19.0	20.0
10	18.5	18.0	18.5	25.0	22.5	23.5	26.5	23.5	24.5	23.5	19.5	21.0
11	19.0	18.5	18.5	25.0	21.5	23.5	26.5	23.0	24.5	22.5	18.5	20.0
12	19.5	19.0	19.0	24.0	23.0	23.5	27.0	24.0	25.0	20.5	16.0	18.0
13	24.5	21.0	19.0	23.5	21.5	22.5	24.5	23.0	23.5	20.5	17.5	18.5
14	24.0	21.0	21.5	26.0	23.0	24.0	23.0	21.5	22.0	20.5	18.5	19.5
15	24.0	20.0	21.5	28.0	23.5	25.5	25.0	21.0	22.5	19.5	16.5	17.5
16	25.0	20.5	22.5	28.5	24.0	26.0	25.0	21.5	23.0	18.5	17.0	17.5
17	25.0	21.5	23.0	29.0	24.5	26.5	24.0	21.5	23.0	21.0	17.0	18.0
18	26.5	22.0	23.5	29.0	24.5	26.5	23.0	20.0	21.5	22.5	18.0	20.0
19	27.0	23.5	25.0	29.0	25.0	27.0	23.0	18.0	20.5	23.0	20.0	21.5
20	27.0	23.0	24.5	---	---	---	23.0	18.5	20.5	23.0	20.5	22.0
21	26.0	22.0	23.5	---	---	---	22.5	17.0	19.0	22.0	19.0	20.0
22	25.0	21.0	23.0	---	---	---	22.0	18.5	20.0	20.0	17.0	18.0
23	26.5	21.5	23.5	---	---	---	22.0	18.5	20.0	17.0	16.5	16.5
24	27.0	22.5	24.5	---	---	---	21.5	19.0	20.0	17.0	16.0	16.5
25	27.0	23.0	24.5	24.0	20.0	22.0	22.0	17.0	19.0	16.5	14.5	15.0
26	26.5	23.0	24.0	24.0	19.0	21.5	22.0	17.0	19.5	15.5	14.5	14.5
27	27.5	23.5	25.5	23.0	18.5	20.5	22.0	18.5	20.0	16.0	14.5	15.5
28	29.0	24.5	26.5	23.0	19.0	21.0	24.5	20.0	21.5	17.5	15.0	16.0
29	26.0	24.0	25.0	23.0	20.0	21.5	25.5	21.5	23.5	17.5	14.5	16.0
30	23.5	19.0	21.0	23.0	19.5	21.5	25.5	23.0	24.0	18.5	15.0	16.5
31	---	---	---	---	---	---	25.5	23.5	24.5	---	---	---
MONTH	29.0	17.0	22.0	29.0	18.5	23.0	27.0	17.0	22.5	24.5	14.5	19.0

01471000 TULPEHOCKEN CREEK NEAR READING, PA

LOCATION.--Lat 40°22'08", long 75°58'46", Berks County, Hydrologic Unit 02040203, on right bank, 15 ft (4.6 m) upstream from covered bridge, 1 mi (2 km) downstream from Cacoosing Creek, 2.5 mi (4.0 km) upstream from mouth, and 3.5 mi (5.6 km) northwest of square at Reading. Water-quality sampling site at covered bridge 15 ft (4.6 m) downstream.

DRAINAGE AREA.--211 mi² (546 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1950 to current year. Monthly discharge only for October, November 1950, published in WSP 1722.

REVISED RECORDS.--WSP 1382: 1951-53, 1954(M). WDR PA-67: 1965(M). WDR PA-72: 1971(M).

GAGE.--Water-stage recorder. Datum of gage is 216.00 ft (65.837 m) above mean sea level.

REMARKS.--Records good except those for winter periods, which are fair. Some regulation at low flow by mills above station.

AVERAGE DISCHARGE.--27 years, 307 ft³/s (8.694 m³/s), 19.76 in/yr (502 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,000 ft³/s (481 m³/s) June 23, 1972, gage height, 15.65 ft (4.770 m), from floodmark in gage shelter, from rating curve extended above 3,500 ft³/s (99 m³/s) on basis of contracted-opening measurement of peak flow; minimum, 23 ft³/s (0.65 m³/s) Dec. 1, 1964, gage height, 0.94 ft (0.287 m), result of upstream shutoff.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,780 ft³/s (50.4 m³/s) Mar. 23, gage height, 3.82 ft (1.164 m); minimum 46 ft³/s (1.30 m³/s) Sept. 15, gage height, 1.09 ft (0.332 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	287	737	187	157	110	461	506	335	150	111	140	105
2	281	619	207	179	110	396	638	318	150	107	170	73
3	458	571	179	187	110	350	1220	317	130	104	110	220
4	666	529	179	191	115	583	1030	297	130	115	105	140
5	489	483	183	175	120	1140	1440	372	135	110	115	82
6	422	445	172	168	110	956	1450	359	140	136	105	100
7	381	412	589	172	100	764	1160	361	190	286	90	94
8	384	391	737	164	104	626	922	315	170	197	88	86
9	1140	360	445	168	113	518	761	300	185	157	100	83
10	1620	340	396	175	119	439	664	290	210	146	87	78
11	1240	335	370	179	126	391	617	284	180	130	270	72
12	776	310	350	153	172	360	554	269	150	249	78	67
13	617	296	320	164	267	607	498	259	125	424	130	67
14	545	300	267	164	391	1070	459	239	127	215	240	70
15	479	296	281	168	340	971	425	224	148	157	120	67
16	432	281	272	160	267	819	403	217	129	143	92	75
17	391	258	263	150	228	684	389	208	123	150	86	119
18	378	254	249	150	207	601	376	203	154	150	110	97
19	335	245	240	150	199	577	364	203	191	120	87	78
20	434	240	249	146	199	512	359	196	155	230	66	83
21	1550	240	258	142	175	478	332	188	186	160	60	92
22	1370	236	164	135	160	805	319	180	133	115	150	87
23	905	228	240	129	215	1770	314	175	120	115	130	82
24	697	211	211	139	461	1600	366	170	114	120	80	88
25	697	211	195	139	1230	1240	612	166	121	170	80	335
26	934	211	215	135	764	986	486	161	159	110	65	303
27	840	207	219	132	524	833	424	151	121	105	60	239
28	710	207	211	126	577	737	394	151	137	100	80	237
29	626	236	203	120	---	724	418	157	168	96	60	177
30	559	228	164	115	---	626	370	141	124	92	45	153
31	717	---	160	115	---	547	---	146	---	88	82	---
TOTAL	21360	9917	8375	4747	7613	23171	18270	7352	4455	4708	3281	3649
MEAN	689	331	270	153	272	747	609	237	149	152	106	122
MAX	1620	737	737	191	1230	1770	1450	372	210	424	270	335
MIN	281	207	160	115	100	350	314	141	114	88	45	67
CFSM	3.27	1.57	1.28	.73	1.29	3.54	2.89	1.12	.71	.72	.50	.58
IN.	3.77	1.75	1.48	.84	1.34	4.09	3.22	1.30	.79	.83	.58	.64

CAL YR 1976 TOTAL 139689 MEAN 382 MAX 6430 MIN 123 CFSM 1.81 IN 24.63
WTR YR 1977 TOTAL 116898 MEAN 320 MAX 1770 MIN 45 CFSM 1.52 IN 20.61

01471000 TULPEHOCKEN CREEK NEAR READING, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1975 to current year.

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL-LECTING SAMPLE	INSTAN-TANEOUS DIS-CHARGE (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (JTU)	DIS-SOLVED OXYGEN (MG/L)	HARD-NESS (CA,MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)
OCT 25...	0915	9813	722	310	7.0	10.0	20	10.2	145	--	0	43
NOV 15...	0955	9813	286	400	7.5	4.5	4	12.5	200	--	0	54
DEC 08...	1310	9813	690	240	7.8	1.0	75	13.6	98	--	0	30
JAN 05...	1015	9813	176	430	7.5	.5	4	13.3	176	--	0	51
FEB 14...	0955	9813	434	300	7.2	1.0	35	13.2	122	0	0	36
MAR 21...	0925	9813	484	320	7.6	--	7	--	136	0	0	35
APR 11...	0840	9813	625	300	7.8	10.0	7	11.1	132	0	0	44
MAY 04...	0940	9813	286	440	7.6	13.5	6	9.7	154	--	0	48
JUN 21...	0830	9813	197	430	7.6	19.0	100	5.5	178	--	0	55
JUL 06...	0835	9813	132	460	7.0	23.0	3	6.5	164	--	0	51
AUG 08...	1015	9813	106	470	7.8	23.5	9	7.3	180	--	0	48
09...	0900	9813	94	255	7.7	23.0	4	5.5	100	--	0	24
SEP 19...	0935	9813	80	490	8.2	20.0	20	6.3	184	--	0	55

DATE	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	TOTAL FILT-RABLE RESIDUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL ORTHO PHOS-PHORUS (P) (MG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)
OCT 25...	9.2	102	22	12	228	3.9	.03	.05	.16	.05	<10	340
NOV 15...	16	150	25	15	282	5.6	.04	.11	.15	.08	<10	180
DEC 08...	5.5	162	26	25	210	4.5	.04	.78	.31	.17	<10	5100
JAN 05...	12	154	26	16	258	6.3	.06	.31	.17	.13	<10	170
FEB 14...	7.5	96	24	18	218	4.8	.08	.88	.41	--	20	2940
MAR 21...	12	110	20	16	238	4.3	.03	.10	.76	--	>10	540
APR 11...	5.0	110	30	14	242	5.0	.04	.16	.06	--	>10	310
MAY 04...	8.5	130	26	15	260	3.8	.09	.13	.10	--	<10	420
JUN 21...	10	152	32	18	284	4.5	.10	.20	.20	--	<10	1200
JUL 06...	9.0	20	32	23	292	4.6	.14	.30	.40	--	<10	330
AUG 08...	14	142	24	19	316	3.7	.09	.16	.22	--	--	360
09...	10	74	14	12	160	1.5	.07	.17	.09	--	<10	1920
SEP 19...	11	152	26	21	328	.12	.11	.30	.55	--	<10	1010

DATE	TIME	CODE FOR AGENCY COL-LECTING SAMPLE	TOTAL ALUM-INUM (AL) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)
AUG 09...	0900	9813	230	<3	<10	<50	330	40	30

01471510 SCHUYLKILL RIVER AT READING, PA

LOCATION.--Lat 40°20'10", long 75°56'15", Berks County, Hydrologic Unit 02040203, on right bank at West Reading, 1,500 ft (457 m) downstream from Penn Avenue Bridge.

DRAINAGE AREA.--880 mi² (2,280 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1914 to Sept. 1915, Oct. 1919 to Sept. 1930 and June 30 to Sept. 30 current year. Monthly discharge only prior to current year published in W.S.P.-1302. Diversion by Schuylkill Navigation Canal included during the navigation seasons of 1914-15.

GAGE.--Water-stage recorder. Datum of gage is 185.50 ft (56.540 m) above mean sea level. May 7, 1914 to Sept. 30, 1930 nonrecording gage at site 1,500 ft (457 m) upstream at same datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--12 years (1914-15, 1919-30), 1,490 ft³/s (42.20 m³/s), 1914-15 adjusted for diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 36,300 ft³/s (1,030 m³/s) Oct. 1, 1924, gage height, 16.5 ft (5.029 m), from rating curve extended above 27,000 ft³/s (765 m³/s); minimum observed, 82 ft³/s (2.32 m³/s) Aug. 12, 1930, gage height, -1.19 ft (-0.363 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 23, 1972, reached a stage of about 31.3 ft (9.540 m) present datum, from floodmarks, discharge, about 90,000 ft³/s (2,550 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,810 ft³/s (51.3 m³/s) Sept. 26, gage height, 2.71 ft (0.826 m); minimum, 229 ft³/s (6.49 m³/s) Sept. 13, gage height, 1.16 ft (0.354 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1									---	487	321	340
2									---	447	334	340
3									---	415	547	330
4									---	407	792	360
5									---	391	471	330
6									---	487	513	310
7									---	772	650	300
8									---	720	567	300
9									---	660	793	290
10									---	522	899	280
11									---	447	1060	270
12									---	771	751	260
13									---	989	912	250
14									---	660	954	248
15									---	487	650	248
16									---	455	540	266
17									---	463	549	479
18									---	660	741	399
19									---	522	522	308
20									---	1080	407	327
21									---	803	400	368
22									---	612	400	334
23									---	504	540	347
24									---	479	480	340
25									---	463	440	974
26									---	594	400	1090
27									---	423	370	1080
28									---	375	360	751
29									---	340	360	495
30									585	347	340	368
31									---	347	330	---
TOTAL	---	---	---	---	---	---	---	---	---	17128	17393	12382
MEAN	---	---	---	---	---	---	---	---	---	553	561	413
MAX	---	---	---	---	---	---	---	---	---	1080	1060	1090
MIN	---	---	---	---	---	---	---	---	---	340	321	248
CFSM	---	---	---	---	---	---	---	---	---	.63	.64	.47
IN.	---	---	---	---	---	---	---	---	---	.72	.74	.52

01471510 SCHUYLKILL RIVER AT READING, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1975 to current year.

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COLLECTING SAMPLE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)
OCT 25...	0845	9813	250	7.0	9.5	10	8.6	108	--
NOV 15...	0920	9813	380	7.2	3.5	3	10.7	80	--
DEC 20...	1410	9813	390	--	--	4	--	142	0
JAN 05...	1255	9813	430	7.0	2.0	4	11.5	180	--
FEB 14...	0920	9813	460	7.0	1.5	10	13.7	168	0
MAR 30...	1350	9813	280	7.2	14.0	10	10.2	104	--
APR 11...	1410	9813	240	7.6	12.0	--	12.7	100	0
MAY 04...	0905	9813	390	7.1	15.0	4	9.5	122	--
JUN 23...	1325	9813	400	8.0	22.5	4	12.0	188	--
JUL 11...	0850	9813	470	7.6	23.0	3	7.7	195	--
AUG 08...	0900	9813	460	7.5	24.5	3	6.5	176	--
SEP 19...	0910	9813	500	8.7	20.0	4	8.0	224	--

DATE	ACIDITY CO2 AS CACO3 (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	TOTAL FLUORIDE (F) (MG/L)	TOTAL FILTRABLE RESIDUE (MG/L)	TOTAL NITRATE (N) (MG/L)
OCT 25...	0	24	12	38	50	11	--	188	2.5
NOV 15...	0	39	20	72	88	16	<.1	298	3.9
DEC 20...	--	36	12	74	70	15	--	234	4.5
JAN 05...	0	47	15	78	108	18	--	320	3.0
FEB 14...	0	44	14	74	122	24	.1	260	3.2
MAR 30...	0	27	--	56	64	13	--	182	2.6
APR 11...	0	27	8.0	54	50	12	--	202	4.1
MAY 04...	0	32	10	60	72	15	<.1	240	2.5
JUN 23...	0	49	16	84	118	28	--	384	2.5
JUL 11...	0	48	18	82	106	19	--	424	3.2
AUG 08...	0	44	16	62	108	21	.1	388	2.6
SEP 19...	0	56	20	80	173	24	--	520	1.5

01471510 SCHUYLKILL RIVER AT READING, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL ALPHA (PC/L)	TOTAL BETA (PC/L)	PHENOLS (UG/L)
OCT 25...	.03	.07	.50	10	590	--	--	--
NOV 15...	.05	.35	.55	10	230	--	--	--
DEC 20...	.05	.70	.12	20	220	--	--	--
JAN 05...	.04	.42	.16	<10	190	--	--	<10
FEB 14...	.06	.88	.22	20	1440	--	--	<10
MAR 30...	.03	.14	.05	10	300	--	--	10
APR 11...	.03	.21	.05	10	350	--	--	>10
MAY 04...	.07	.17	.10	<10	280	<1.0	3.0	<10
JUN 27...	.06	.11	.22	<10	350	--	--	<10
JUL 11...	.06	.08	.17	60	280	--	--	<10
AUG 08...	.04	.06	.36	10	300	--	--	<10
SEP 19...	.07	.15	.12	<10	200	--	--	<10

DATE	TIME	CODE FOR AGENCY COL-LECTING SAMPLE	TOTAL ALUM-INUM (AL) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)
NOV 15...	0920	9813	--	--	<10	<50	670	60	50
FEB 14...	0920	9813	--	<3	20	<50	0	20	90
MAY 04...	0905	9813	--	--	--	50	340	50	10
AUG 08...	0900	9813	340	--	<10	50	190	100	10

01471980 MANATAWNY CREEK NEAR POTTSTOWN, PA

LOCATION.--Lat 40°16'22", long 75°40'49", Berks County, Hydrologic Unit 02040203, on left bank about 180 ft (55 m) upstream from bridge on Manatawny Street, 0.7 mi (1.1 km) downstream from Ironstone Creek, 2.4 mi (3.9 km) northwest of Pottstown, 3.1 mi (5.0 km) upstream from mouth, and 4.7 mi (7.6 km) southwest of Boyertown.

DRAINAGE AREA.--85.5 mi^3 (221 km^2).

PERIOD OF RECORD.--August 1974 to current year.

GAGE.--Water-stage recorder. Datum of gage is 150.00 ft (45.720 m) above mean sea level (levels by Corps of Engineers).

REMARKS.--Records good except those for the period Nov. 30 to Feb. 22, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,160 ft^3/s (89.5 m^3/s) Mar. 20, 1975, gage height, 7.05 ft (2.149 m); minimum, 22 ft^3/s (0.62 m^3/s) Sept. 10, 14, 15, 1976, Dec. 30, 1977; minimum gage height, 1.80 ft (0.549 m) Dec. 30, 1977, result of freezeup.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 22, 1972 reached a stage of 17.1 ft (5.21 m), from floodmarks, discharge, about 9,600 ft^3/s (272 m^3/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,200 ft^3/s (34.0 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 14	0115	ice jam		4.66	1.420	Mar. 22	2230	*2,500	70.8	*6.66	2.030
Feb. 24	2245	2,160	61.2	6.10	1.859	Apr. 5	0845	1,790	50.7	5.48	1.670
Mar. 13	2030	2,400	68.0	6.50	1.981						

Minimum discharge, 22 ft^3/s (0.62 m^3/s) Dec. 30, gage height, 1.80 ft (0.549 m), result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64	142	65	35	34	113	116	113	60	45	152	38
2	61	108	62	32	33	98	333	110	60	43	69	38
3	126	101	58	30	33	89	483	110	51	40	75	37
4	140	100	56	29	35	378	203	105	48	39	96	36
5	76	96	54	28	40	436	1390	231	47	40	53	34
6	65	93	96	28	37	166	597	146	58	46	62	35
7	63	87	524	35	35	133	366	133	73	73	65	35
8	61	84	184	30	35	116	296	110	55	66	49	34
9	591	78	127	28	34	106	244	110	73	55	43	33
10	168	80	89	128	34	100	218	105	111	46	43	32
11	100	78	79	137	250	94	202	101	65	42	61	31
12	87	76	78	45	500	89	187	96	55	235	47	28
13	78	74	79	42	800	672	172	91	51	283	141	29
14	73	73	76	40	650	692	162	87	50	63	92	30
15	70	72	72	55	300	230	152	85	54	49	68	31
16	69	71	69	47	150	176	146	82	51	44	54	31
17	66	70	68	44	110	145	139	80	47	42	57	44
18	65	70	65	42	105	169	136	80	62	40	60	36
19	62	69	70	40	100	183	130	94	58	39	48	27
20	173	68	64	39	110	145	127	80	56	110	43	30
21	570	67	81	38	90	145	124	73	78	58	41	30
22	125	66	72	37	80	1050	118	67	53	46	53	29
23	98	64	65	37	306	754	118	64	47	40	59	29
24	92	62	60	37	516	294	130	61	44	39	50	44
25	125	63	84	45	742	218	194	59	47	40	49	130
26	313	63	70	41	172	189	198	56	64	50	42	68
27	131	64	68	39	136	169	162	53	51	40	40	57
28	107	64	64	38	172	160	133	52	52	36	40	55
29	99	84	60	37	---	152	149	49	69	34	39	46
30	93	70	55	36	---	138	121	49	51	37	38	40
31	256	---	45	35	---	127	---	52	---	38	37	---
TOTAL	4267	2357	2759	1354	5639	7726	7246	2784	1741	1898	1866	1197
MEAN	138	78.6	89.0	43.7	201	249	242	89.8	58.0	61.2	60.2	39.9
MAX	591	142	524	137	800	1050	1390	231	111	283	152	130
MIN	61	62	45	28	33	89	116	49	44	34	37	27
CFSM	1.61	.92	1.04	.51	2.35	2.91	2.83	1.05	.68	.72	.70	.47
IN.	1.86	1.03	1.20	.59	2.45	3.36	3.15	1.21	.76	.83	.81	.52

CAL YR 1976 TOTAL 41213 MEAN 113 MAX 1550 MIN 23 CFSM 1.32 IN 17.93
WTR YR 1977 TOTAL 40834 MEAN 112 MAX 1390 MIN 27 CFSM 1.31 IN 17.77

01472000 SCHUYLKILL RIVER AT POTTSTOWN, PA

LOCATION.--Lat 40°14'30", long 75°39'07", Montgomery County, Hydrologic Unit 02040203, on right bank 75 ft (23 m) upstream from Hanover Street bridge in Pottstown and 0.4 mi (0.6 km) downstream from Manatawny Creek. Water-quality sampling site at bridge 75 ft (23 m) downstream.

DRAINAGE AREA.--1,147 mi^2 (2,971 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1926 to current year. Monthly discharges only for some periods, published in WSP 1302.

GAGE.--Water-stage recorder. Datum of gage is 117.86 ft (35.924 m) above mean sea level. October 1926 to Nov. 22, 1928 nonrecording gage and Nov. 23, 1928 to Dec. 26, 1972 recording gage at site 100 ft (30 m) downstream at same datum. Dec. 27, 1972 to May 10, 1974 nonrecording gage 1.0 mi (1.6 km) downstream at datum 2.83 ft (0.863 m) lower.

REMARKS.--Records fair. Some regulation at low flow by mill above station.

AVERAGE DISCHARGE.--51 years, 1,878 ft^3/s (53.18 m^3/s), 22.24 in/yr (565 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 95,900 ft^3/s (2,720 m^3/s) June 23, 1972, gage height, 29.97 ft (9.135 m), from floodmark, minimum, 87 ft^3/s (2.46 m^3/s) Aug. 13, 1930, gage height, 0.43 ft (0.131 m); minimum daily, 175 ft^3/s (4.96 m^3/s) Sept. 19, 1932.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known prior to October 1926, 21.0 ft (6.40 m) Feb. 28, 1902, from floodmarks, discharge,53,900 ft^3/s (1,530 m^3/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 7,200 ft^3/s (204 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Oct. 10	0515	15,400	436	9.77	2.978
Oct. 21	1545	10,800	306	7.91	2.411
Feb. 25	1500	8,760	248	6.99	2.131
Mar. 5	1330	14,800	419	9.54	2.908
Mar. 14	0500	12,900	365	8.76	2.670
Mar. 23	0930	*17,300	490	*10.45	3.185
Apr. 5	0730	11,600	329	8.25	2.515

Minimum discharge, 432 ft^3/s (12.2 m^3/s) Sept. 12-15, gage height, 1.40 ft (0.427 m).

CORRECTION.--The maximum discharge for water year 1976 is 41,800 ft^3/s (1,180 m^3/s) Jan. 27, 1976, gage height, 17.88 ft (5.450 m); the previously published date was incorrect.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1440	4580	965	800	560	3380	2420	2170	822	752	673	584
2	1410	3630	925	820	560	2760	2820	1970	867	680	733	573
3	2260	3200	869	841	580	2340	6450	1970	875	633	686	549
4	3220	2900	839	853	607	2760	5770	1830	768	598	1130	616
5	2520	2590	870	837	619	12300	10500	2240	728	591	854	565
6	2100	2390	848	785	570	9360	9580	2230	773	593	702	520
7	1860	2160	2550	822	560	6330	6930	2530	970	969	813	517
8	1690	2000	5150	750	570	4690	5550	2260	888	1020	836	510
9	6620	1840	2950	776	573	3680	4460	2020	857	954	776	498
10	13000	1700	2350	892	583	3040	3800	1960	1320	805	979	481
11	7450	1600	2050	843	635	2640	3360	1810	1060	704	1030	462
12	4880	1520	1880	772	1040	2350	3030	1670	854	965	1090	442
13	3600	1440	1720	742	1420	3850	2700	1540	770	1370	1120	432
14	3000	1440	1460	739	2140	12100	2470	1460	723	1130	1360	432
15	2550	1400	1420	777	2120	9200	2280	1390	752	802	1070	444
16	2220	1350	1400	773	1320	6700	2130	1320	725	698	864	445
17	1970	1280	1350	740	1060	5110	2010	1280	679	660	792	534
18	1790	1240	1290	720	926	4200	1900	1240	738	700	892	716
19	1670	1220	1220	690	916	4090	1820	1290	925	845	891	580
20	2030	1190	1180	680	934	3510	1740	1300	766	1110	730	547
21	8710	1160	1250	670	888	3190	1670	1210	938	1270	660	551
22	7350	1130	1060	660	791	6130	1580	1150	825	911	675	579
23	5000	1080	1080	648	854	15700	1530	1080	680	763	925	553
24	3800	1040	1020	642	1740	10600	1730	1020	634	657	822	573
25	3840	1020	952	658	7120	7270	3520	960	614	625	743	1070
26	5140	1010	1000	669	5420	5550	3170	930	1110	765	682	1760
27	4710	1000	998	662	3630	4460	2990	890	1120	753	628	2030
28	3940	1010	992	627	3640	3800	2870	865	841	628	606	[illegible]
29	3370	1140	986	610	---	3480	2800	840	1020	580	600	1320
30	2940	1210	831	590	---	3130	2440	900	927	564	577	1090
31	3880	---	800	570	---	2710	---	860	---	565	554	---
TOTAL	119960	51470	44255	22658	42376	170410	106020	46185	25569	24660	25492	21603
MEAN	3870	1716	1428	731	1513	5497	3534	1490	852	795	822	720
MAX	13000	4580	5150	892	7120	15700	10500	2530	1320	1370	1360	2030
MIN	1410	1000	800	570	560	2340	1530	840	614	564	554	432
CFSM	3.37	1.50	1.25	.64	1.32	4.79	3.08	1.30	.74	.69	.72	.63
IN.	3.89	1.67	1.44	.73	1.37	5.53	3.44	1.50	.83	.80	.83	.70

CAL YR 1976 TOTAL 857970 MEAN 2344 MAX 37400 MIN 576 CFSM 2.04 IN 27.83
WTR YR 1977 TOTAL 700658 MEAN 1920 MAX 15700 MIN 432 CFSM 1.67 IN 22.72

01472000 SCHUYLKILL RIVER AT POTTSTOWN, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1975 to current year.

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COLLECTING SAMPLE	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	HARDNESS (CA,MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)
OCT 20...	1500	9813	1710	370	12.0	6	140	0
NOV 22...	0830	9813	1130	480	--	2	166	0
DEC 15...	0900	9813	1420	340	3.0	6	125	0
JAN 12...	1030	9813	693	500	.0	6	200	0
FEB 08...	1430	9813	570	500	--	5	200	0
MAR 16...	1500	9813	6460	210	11.0	15	72	0
APR 27...	1400	9813	2910	270	14.0	6	--	--
MAY 12...	1000	9813	1670	370	14.0	2	122	0
JUN 06...	0900	9813	724	500	20.0	2	176	--
JUL 14...	0900	9813	1190	420	26.0	25	148	--
AUG 04...	0930	9813	1120	440	24.0	5	142	0

DATE	ACIDITY CO2 AS CACO3 (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	TOTAL FLUORIDE (F) (MG/L)	TOTAL FILTRABLE RESIDUE (MG/L)	TOTAL NONFILTRABLE RESIDUE (MG/L)
OCT 20...	0	40	10	68	70	19	.1	238	12
NOV 22...	0	40	16	56	88	21	.4	276	6
DEC 15...	0	33	10	74	62	18	.1	220	8
JAN 12...	0	47	20	88	110	40	.1	324	16
FEB 08...	0	53	16	86	130	35	.2	344	10
MAR 16...	0	20	5.0	40	36	13	.1	162	28
APR 27...	0	--	--	58	--	--	--	--	--
MAY 12...	0	41	4.5	66	64	21	.1	226	2
JUN 06...	0	44	16	98	104	30	--	354	10
JUL 14...	0	40	11	70	75	19	.1	298	46
AUG 04...	0	--	--	64	62	29	.1	294	34

01472000 SCHUYLKILL RIVER AT POTTSTOWN, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TOTAL RESI- DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)
OCT								
20...	--	2.6	.06	.34	.18	360	--	--
NOV								
22...	282	3.8	.08	.60	.23	250	--	<10
DEC								
15...	--	2.7	.06	.54	.16	300	--	<10
JAN								
12...	--	3.1	.12	.99	.26	220	--	<10
FEB								
08...	354	3.6	.26	1.6	.40	160	--	--
MAR								
16...	190	2.5	.04	.15	.11	1590	--	<10
APR								
27...	--	--	--	--	.10	320	--	--
MAY								
12...	228	2.7	.15	.48	.13	220	--	<10
JUN								
06...	364	2.5	.11	.18	.26	110	--	--
JUL								
14...	--	3.6	.10	.17	.28	1360	--	<10
AUG								
04...	--	3.2	.05	.29	.26	580	<3.0	<10

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	TOTAL ALUM- INUM (AL) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)
NOV										
22...	0830	9813	100	<3	10	10	<50	400	10	60
DEC										
15...	0900	9813	100	<3	20	40	<50	280	20	30
JAN										
12...	1030	9813	130	<3	<10	10	<50	700	20	80
MAR										
16...	1500	9813	900	4	10	10	<50	300	20	140
APR										
27...	1400	9813	400	<3	<10	10	<50	270	10	110
MAY										
12...	1000	9813	110	<5	10	<10	<50	170	<10	30
JUN										
06...	0900	9813	50	<3	20	<10	<50	110	10	120
JUL										
14...	0900	9813	1000	<3	<20	10	<50	230	<10	60
AUG										
04...	0930	9813	400	<3	<10	20	<50	170	<10	70

01472157 FRENCH CREEK NEAR PHOENIXVILLE, PA

LOCATION.--Lat 40°09'05", long 75° 36'06", Chester County, Hydrologic Unit 02040203, on right bank 70 ft (21 m) downstream from two-span county bridge on French Creek Road, 4.5 mi (7.2 km) northwest of Phoenixville, and 7.3 mi (11.7 km) upstream from mouth.

DRAINAGE AREA.--59.1 mi² (153.1 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Altitude of gage is 160 ft (49 m), from topographic map. Prior to Nov. 7, 1968, nonrecording gage at site 70 ft (21 m) upstream at same datum.

REMARKS.--Records fair except those for the periods December 30 through February 10 and June 24 to July 26, which are poor.

AVERAGE DISCHARGE.--9 years, 89.4 ft³/s (2.532 m³/s), 20.53 in/yr (521 mm/yr).

EXTREMES FOR PERIOD OF RECORD.-- Maximum discharge, 11,200 ft³/s (317 m³/s) June 22, 1972, gage height, 13.66 ft (4.164 m), from rating curve extended above 2,500 ft³/s (70.8 m³/s) on basis of slope-area measurement of peak flow; minimum, 11 ft³/s (0.31 m³/s) July 4, 5, 1969, gage height, 4.11 ft (1.253 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 750 ft³/s (21.2 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Oct. 21	0015	758	21.5	6.63	2.021	Mar. 22	1630	*1,720	48.7	*8.00	2.438
Feb. 24	2230	1,060	30.0	7.12	2.170	Apr. 5	0400	1,600	45.3	7.85	2.393
Mar. 13	2330	752	21.3	6.62	2.018						

Minimum discharge, 9.6 ft³/s (0.27 m³/s) Sept. 12, 13, 14, 15, gage height, 4.09 ft (1.247 m).

Note.--No gage-height record June 24 to July 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	104	42	18	24	74	83	75	39	35	19	92
2	40	68	41	16	23	66	198	72	71	31	51	29
3	170	61	40	15	22	60	245	71	41	28	25	20
4	100	61	39	15	24	165	132	71	36	26	35	16
5	47	56	39	15	27	209	1020	121	34	24	21	15
6	39	53	39	15	25	100	336	98	43	35	20	15
7	37	51	313	30	24	82	198	77	52	50	19	14
8	35	48	160	25	23	72	176	69	39	35	17	13
9	330	46	73	20	30	68	147	68	56	30	16	13
10	147	46	60	123	50	65	135	65	75	27	16	13
11	62	44	55	217	144	61	125	61	46	30	32	12
12	48	43	55	60	292	58	119	60	42	40	20	10
13	45	42	53	50	349	267	110	57	41	30	25	11
14	42	42	51	45	240	369	106	55	45	26	30	10
15	40	41	56	60	149	132	100	52	40	24	30	10
16	38	40	44	45	108	104	96	51	37	22	21	11
17	36	39	45	35	83	86	90	50	36	30	20	21
18	36	40	43	33	71	116	86	51	35	24	27	19
19	35	39	41	31	69	119	85	61	40	21	20	15
20	121	39	42	29	69	90	83	53	37	25	17	39
21	369	38	60	28	66	100	82	50	45	35	16	23
22	88	38	51	26	57	723	80	46	30	25	37	22
23	60	36	50	25	62	516	80	44	27	20	25	22
24	53	35	46	25	300	182	88	44	26	18	20	23
25	69	36	50	35	449	137	160	43	25	40	22	132
26	137	37	42	32	125	121	152	42	60	25	19	62
27	77	37	45	30	96	108	112	38	40	20	17	38
28	58	37	43	28	96	104	90	35	50	17	16	37
29	53	52	41	27	---	102	102	34	80	16	15	28
30	50	49	25	26	---	96	83	34	45	16	16	22
31	162	---	20	25	---	88	---	36	---	17	15	---
TOTAL	2674	1398	1804	1204	3097	4640	4699	1784	1313	842	699	807
MEAN	86.3	46.6	58.2	38.8	111	150	157	57.5	43.8	27.2	22.5	26.9
MAX	369	104	313	217	449	723	1020	121	80	50	51	132
MIN	35	35	20	15	22	58	80	34	25	16	15	10
CFSM	1.46	.79	.99	.66	1.88	2.54	2.66	.97	.74	.46	.38	.46
IN.	1.68	.88	1.14	.76	1.95	2.92	2.96	1.12	.83	.53	.44	.51

CAL YR 1976 TOTAL 27175 MEAN 74.2 MAX 879 MIN 18 CFSM 1.26 IN 17.10
WTR YR 1977 TOTAL 24961 MEAN 68.4 MAX 1020 MIN 10 CFSM 1.16 IN 15.71

01472157 FRENCH CREEK NEAR PHOENIXVILLE, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1969 to current year.

COOPERATION.--Four water-quality analyses were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, OCTOBER 1976 TO AUGUST 1977

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)
OCT 27...	1445	140	7.2	8.0	12.0	45	12	11	4.3	5.7

DATE	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)
OCT 27...	2.5	41	0	34	4.1	19	9.2	.1	16	93

DATE	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ORTHO PHOSPHORUS (P) (MG/L)
OCT 27...	88	.91	.01	.92	.09	.36	.45	1.4	.04	.01

DATE	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED CHROMIUM (CR) (UG/L)	DISSOLVED COBALT (CO) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	DISSOLVED NICKEL (NI) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
OCT 27...	1	<10	0	0	220	7	20	8	10

01472157 FRENCH CREEK NEAR PHOENIXVILLE, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COLLECTING SAMPLE	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)
NOV 22...	0930	9813	38	150	--	3.0	1	--	40
FEB 15...	1330	9813	142	140	--	2.0	6	--	42
MAY 02...	1430	9813	74	120	--	17.0	1	--	35
AUG 11...	1330	9813	32	900	8.8	27.0	2	8.5	50

DATE	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	TOTAL FLUORIDE (F) (MG/L)	TOTAL FILTRABLE RESIDUE (MG/L)
NOV 22...	--	0	12	2.0	104	15	10	<.1	108
FEB 15...	0	0	9.5	4.5	28	20	17	<.1	94
MAY 02...	--	0	8.7	3.2	34	15	11	<.1	89
AUG 11...	--	0	14	3.5	52	5.0	10	--	106

DATE	TOTAL NONFILTRABLE RESIDUE (MG/L)	TOTAL RESIDUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
NOV 22...	4	112	2.1	.02	<.02	.05	160	.00
FEB 15...	28	112	2.1	.04	.20	.10	830	<.01
MAY 02...	<5	--	1.6	.03	.16	.03	190	<.01
AUG 11...	<10	--	1.2	.02	.05	.07	340	--

DATE	TIME	CODE FOR AGENCY COLLECTING SAMPLE	TOTAL ALUMINUM (AL) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)
FEB 15...	1330	9813	170	<3	10	<10	<50	70	<10	20

01472174 PICKERING CREEK NEAR CHESTER SPRINGS, PA

LOCATION.--Lat 40°05'22", long 75°37'50", Chester County, Hydrologic Unit 02040203, on left bank 30 ft (9.1 m) downstream from bridge on Horseshoe Trail Road, 0.45 mi (0.72 km) downstream from unnamed tributary, and 0.75 mi (1.21 km) southwest of Chester Springs.

DRAINAGE AREA.--5.98 mi^2 (15.49 km^2).

PERIOD OF RECORD.--January 1967 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Altitude of gage is 280 ft (85 m), from topographic map. Prior to Aug. 11, 1967, nonrecording gage at same site and datum.

REMARKS.--Records good except those for December 30 through February 18, which are poor.

AVERAGE DISCHARGE.--10 years, 9.91 ft^3/s (0.281 m^3/s), 22.51 in/yr (572 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,410 ft^3/s (68.3 m^3/s) June 22, 1972, gage height, 5.21 ft (1.588 m), from rating curve extended above 700 ft^3/s (19.8 m^3/s); minimum, 0.87 ft^3/s (0.025 m^3/s) Sept. 1, 2, 1969, gage height, 0.94 ft (0.287 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 220 ft^3/s (6.23 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 24	2045	*491	13.9	*4.49	1.369	Apr. 5	0415	322	9.12	4.27	1.301
Mar. 22	1615	419	11.9	4.41	1.344						

Minimum daily discharge, 1.8 ft^3/s (0.051 m^3/s) many days in January and February; minimum gage height, 1.17 ft (0.357 m) Feb. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.3	8.0	4.5	3.7	1.8	6.8	6.3	7.3	3.8	3.8	3.0	5.7
2	4.6	6.5	4.4	3.7	1.8	6.3	23	7.6	5.3	3.6	2.6	4.3
3	32	6.2	5.0	3.7	1.8	6.0	16	7.5	3.8	3.4	3.0	3.8
4	6.6	6.3	4.6	4.3	2.0	17	15	7.0	3.6	3.1	2.6	3.6
5	4.8	5.9	4.8	4.0	2.3	14	108	9.4	3.4	3.1	2.4	3.5
6	4.5	5.6	4.8	3.8	2.0	9.0	21	7.8	3.8	3.1	2.7	4.3
7	4.3	5.5	42	3.9	1.9	8.1	15	6.5	3.9	4.2	2.3	3.6
8	4.2	5.3	8.1	7.1	1.8	7.3	13	5.9	3.6	3.6	2.3	3.4
9	46	5.2	7.8	6.3	3.0	6.8	11	6.0	8.9	3.4	2.3	3.2
10	7.8	5.2	5.3	20	5.2	6.3	11	5.6	25	3.2	3.9	3.1
11	5.6	4.9	5.3	16	16	5.9	10	5.5	6.3	3.0	2.7	3.0
12	4.9	4.9	5.5	6.3	21	5.6	9.6	5.3	5.5	3.0	2.7	2.9
13	4.4	4.8	4.9	4.5	24	61	9.2	5.0	5.0	3.0	2.8	2.8
14	4.2	4.8	5.7	3.5	10	27	8.8	4.8	5.3	2.8	3.8	2.8
15	4.2	4.8	4.4	4.0	7.6	12	8.3	4.5	6.0	2.7	2.8	2.8
16	4.0	4.6	4.4	3.0	6.6	11	8.1	4.5	5.0	2.6	2.6	3.1
17	4.0	4.6	4.4	2.5	5.5	9.8	7.8	4.5	4.8	2.5	3.2	3.4
18	4.0	4.8	4.3	2.2	5.0	15	7.6	4.4	4.8	2.4	2.6	3.0
19	3.9	4.6	4.2	2.0	4.5	11	7.4	4.8	4.5	2.4	2.4	25
20	35	4.5	4.6	1.9	4.6	11	6.5	4.5	4.5	2.4	2.3	7.5
21	21	4.5	5.7	1.8	4.3	10	4.9	4.2	4.5	2.5	9.2	4.0
22	7.5	4.4	5.7	1.8	5.7	102	5.0	4.0	4.2	2.3	4.0	5.0
23	6.3	4.4	4.6	1.8	5.2	21	5.3	3.7	4.0	2.3	3.1	4.0
24	6.3	4.3	4.8	1.8	89	13	8.7	3.7	3.9	2.2	3.4	4.3
25	7.3	4.4	4.6	2.5	27	11	11	3.7	3.9	3.2	3.0	14
26	14	4.3	4.2	2.5	9.6	8.9	16	3.7	3.9	2.8	2.8	6.5
27	7.0	4.4	5.7	2.2	8.7	6.5	10	3.6	3.7	2.4	2.7	6.5
28	6.2	4.4	3.8	2.0	8.1	6.6	8.9	3.5	4.6	2.3	2.6	7.1
29	5.9	7.3	3.9	1.9	---	6.8	9.8	3.4	5.5	2.3	2.6	5.0
30	5.6	4.9	3.8	1.8	---	6.8	7.6	3.4	3.9	2.3	2.5	4.5
31	21	---	3.7	1.8	---	6.5	---	3.5	---	2.3	51	---
TOTAL	303.4	154.3	189.5	126.3	286.0	456.0	409.8	158.8	158.9	88.2	141.9	155.7
MEAN	9.79	5.14	6.11	4.07	10.2	14.7	13.7	5.12	5.30	2.85	4.58	5.19
MAX	46	8.0	42	20	89	102	108	9.4	25	4.2	51	25
MIN	3.9	4.3	3.7	1.8	1.8	5.6	4.9	3.4	3.4	2.2	2.3	2.8
CFSM	1.64	.86	1.02	.68	1.71	2.46	2.29	.86	.89	.48	.77	.87
IN.	1.89	.96	1.18	.79	1.78	2.84	2.55	.99	.99	.55	.88	.97

CAL YR 1976 TOTAL 3281.0 MEAN 8.96 MAX 157 MIN 2.1 CFSM 1.50 IN 20.41
WTR YR 1977 TOTAL 2628.8 MEAN 7.20 MAX 108 MIN 1.8 CFSM 1.20 IN 16.35

01472186 PIGEON RUN AT RAPPS CORNER, PA

LOCATION.--Lat 40°04'58", long 75°35'31", Chester County, Hydrologic Unit 02040203, on left bank 5 ft (2 m) upstream from Yellow Springs Road, 0.6 mi (1.0 km) southeast of Rapps Corner, 1.6 mi (2.6 km) southeast of Chester Springs and 3 mi (4.8 km) west of Devault, Pa.

DRAINAGE AREA.--1.06 mi² (2.75 km²).

PERIOD OF RECORD.--March 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 280 ft (85 m), from topographic map.

REMARKS.--Records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 109 ft³/s (3.09 m³/s) July 13, 14, 1975, gage height, 9.01 ft (2.746 m), from rating curve extended above 35 ft³/s (1.0 m³/s); minimum, 0.32 ft³/s (0.009 m³/s) Aug. 29, 1974; minimum gage height, 5.06 ft (1.542 m) on many days in August and September 1975.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 10 ft³/s (0.28 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Oct. 3	0030	17	0.48	6.02	1.835	Apr. 5	0330	44	1.25	6.97	2.124
Oct. 20	2105	17	0.48	6.04	1.841	Aug. 22	0335	23	0.65	6.28	1.914
Oct. 31	0735	15	0.42	5.94	1.811	Aug. 31	1735	46	1.30	7.01	2.137
Dec. 7	0955	31	0.88	6.55	1.996	Sept. 6	1455	27	0.76	6.40	1.951
Feb. 24	2105	*69	1.95	*7.72	2.353	Sept.19	2125	48	1.36	7.07	2.155
Mar. 13	2020	48	1.36	7.07	2.155	Sept.25	0540	12	0.34	6.02	1.835
Mar. 22	1400	56	1.59	7.32	2.231						

Minimum discharge, 0.38 ft³/s (0.011 m³/s) July 24, Sept. 13, 14, 15; minimum gage height, 5.15 ft (1.570 m) July 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	1.1	.68	.52	.52	1.2	1.2	2.1	1.6	.68	.78	1.7
2	.78	.99	.68	.58	.47	1.1	2.4	2.1	1.7	.68	.58	.88
3	3.7	.99	.68	.58	.47	.99	1.8	2.0	1.2	.58	1.1	.78
4	.99	.99	.68	.58	.52	1.6	2.2	2.1	1.1	.58	.58	.68
5	.78	.88	.68	.52	.52	2.5	14	2.8	1.1	.58	.52	.68
6	.78	.88	.68	.52	.47	1.5	3.4	2.2	1.5	.78	.58	3.9
7	.68	.88	6.0	.58	.52	1.2	2.8	2.0	1.2	.78	.52	.58
8	.58	.88	1.1	.52	.47	1.1	2.4	1.8	1.1	.68	.47	.47
9	3.9	.78	.88	.58	.52	.99	2.1	1.8	2.1	.58	.43	.47
10	1.1	.78	.68	3.4	.52	.99	2.0	1.8	1.6	.58	.99	.43
11	.88	.88	.78	.99	2.3	.99	1.8	1.7	1.2	.58	.58	.43
12	.78	.78	.78	.88	3.0	.99	1.8	1.7	1.1	.68	.47	.40
13	.68	.78	.68	.78	2.8	10	1.7	1.7	1.1	.68	.68	.40
14	.68	.78	.68	.78	1.7	4.2	1.7	1.7	1.2	.52	.88	.40
15	.68	.78	.68	.99	1.4	2.5	1.6	1.6	1.5	.52	.58	.40
16	.58	.78	.68	.68	1.2	2.1	1.7	1.6	1.1	.52	.52	.40
17	.58	.78	.68	.68	1.1	1.8	1.8	1.5	.99	.52	.78	.58
18	.58	.78	.58	.58	.88	2.5	1.7	1.5	.99	.52	.52	.43
19	.58	.78	.58	.58	.88	1.8	1.7	1.5	.88	.47	.47	4.8
20	3.4	.68	.78	.58	.99	1.6	1.7	1.5	.88	.58	.47	1.1
21	1.7	.68	.78	.58	.88	1.5	1.7	1.3	.88	.47	.47	.47
22	.99	.68	.58	.58	.88	12	1.7	1.3	.78	.43	3.2	.52
23	.88	.68	.58	.58	.99	3.0	1.8	1.2	.78	.43	.58	.47
24	.88	.68	.52	.68	8.0	2.1	2.5	1.2	.78	.43	.68	.47
25	.99	.68	.58	.68	8.8	1.8	2.7	1.2	.78	.78	.52	2.4
26	1.6	.68	.58	.58	1.8	1.7	3.1	1.2	.78	.52	.52	1.1
27	.99	.68	.58	.58	1.5	1.7	2.5	1.2	.78	.47	.47	1.1
28	.88	.68	.58	.52	1.5	1.6	2.4	1.1	1.3	.43	.47	1.1
29	.88	1.2	.58	.52	---	1.5	2.5	1.1	1.1	.47	.43	.78
30	.78	.68	.52	.52	---	1.3	2.2	1.2	.68	.47	.47	.68
31	2.8	---	.52	.52	---	1.2	---	1.3	---	.43	5.4	---
TOTAL	37.18	24.27	26.04	22.24	45.60	71.05	74.6	50.0	33.78	17.42	25.71	29.00
MEAN	1.20	.81	.84	.72	1.63	2.29	2.49	1.61	1.13	.56	.83	.97
MAX	3.9	1.2	6.0	3.4	8.8	12	14	2.8	2.1	.78	5.4	4.8
MIN	.58	.68	.52	.52	.47	.99	1.2	1.1	.68	.43	.43	.40
CFSM	1.13	.76	.79	.68	1.54	2.16	2.35	1.52	1.07	.53	.78	.92
IN.	1.30	.85	.91	.78	1.60	2.49	2.62	1.75	1.18	.61	.90	1.02

CAL YR 1976 TOTAL 525.91 MEAN 1.44 MAX 17 MIN .49 CFSM 1.36 IN 18.44
WTR YR 1977 TOTAL 456.89 MEAN 1.25 MAX 14 MIN .40 CFSM 1.18 IN 16.02

01473000 PERKIOMEN CREEK AT GRATERFORD, PA

LOCATION.--Lat 40°13'46", long 75°27'07", Montgomery County, Hydrologic Unit 02040203, on left bank 1,650 ft (503 m) upstream from highway bridge at Graterford, 0.5 mi (0.8 km) upstream from Landis Brook and 2.5 mi (4.0 km) north of Collegeville. Water-quality sampling site 1,710 ft (521 m) downstream.

DRAINAGE AREA.--279 mi^2 (723 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1914 to current year. Monthly discharge only for some periods, published in WSP 1302. Prior to October 1950, published as "at Graters Ford".

REVISED RECORDS.--WSP 756: Drainage area. WSP 1171: 1935(M). WSP 1302: 1915-16, 1927-29. WSP 1382: 1932-33, 1935, 1937, 1942, 1947, 1948(M), 1949(P), 1950(M), 1951-52(P).

GAGE.--Water-stage recorder. Datum of gage is 112.66 ft (34.339 m) above mean sea level. June 1914 to Sept. 6, 1921, nonrecording gage at site 1,650 ft (503 m) downstream at datum 3.29 ft (1.003 m) lower. Sept. 7, 1921 to Sept. 13, 1927, nonrecording gage at present site and datum.

REMARKS.--Records good except those for the period Dec. 30 to Feb. 10, which are poor. Some regulation by Green Lane Reservoir 10.5 mi (16.9 km) upstream since December 21, 1956 (see p. 232).

AVERAGE DISCHARGE.--63 years, 381 ft^3/s (10.79 m^3/s), 18.54 in/yr (471 mm/yr), adjusted for storage since December 1956.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 39,900 ft^3/s (1,130 m^3/s) July 9, 1935, gage height, 18.26 ft (5.566 m), from rating curve extended above 12,000 ft^3/s (340 m^3/s) on basis of slope-area measurement at gage height 16.23 ft (4.947 m); minimum, 4.7 ft^3/s (0.13 m^3/s) Oct. 5, 1941; minimum daily, 5.6 ft^3/s (0.16 m^3/s) Oct. 5, 1941.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 18,600 ft^3/s (527 m^3/s) Mar. 23, gage height, 12.19 ft (3.716 m); minimum, 22 ft^3/s (0.62 m^3/s) Dec. 3, gage height, 0.85 ft (0.259 m), result of freezeup; minimum daily, 38 ft^3/s (1.08 m^3/s) Sept. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	95	726	103	75	60	573	273	308	81	78	74	59
2	97	384	95	70	58	414	1010	271	94	72	301	57
3	366	301	90	65	58	330	2000	273	89	67	105	57
4	323	288	90	62	70	1410	843	241	79	57	150	55
5	154	262	90	60	100	3060	7930	697	64	51	102	38
6	118	232	110	58	80	1030	2180	603	71	59	83	45
7	106	199	2070	90	75	632	1030	994	100	81	160	47
8	93	184	1380	80	72	479	770	439	88	84	95	47
9	1220	161	441	130	70	386	567	346	93	86	70	47
10	851	157	328	199	200	336	488	324	262	72	63	45
11	352	141	269	339	426	304	435	262	174	61	95	43
12	229	136	251	361	859	278	397	213	110	175	105	42
13	178	127	248	288	1640	1040	350	195	91	535	145	43
14	158	118	180	255	2100	6950	322	172	81	187	315	43
15	118	113	213	279	1140	1630	285	150	83	101	169	59
16	108	115	156	200	430	868	265	137	79	77	111	61
17	95	106	157	170	302	581	242	134	72	69	90	57
18	90	112	149	140	237	467	232	128	74	63	122	63
19	86	108	130	130	174	840	229	140	109	61	90	63
20	124	105	130	120	172	531	217	131	84	75	70	74
21	1630	99	189	110	159	546	207	118	162	95	61	65
22	507	97	184	100	156	1300	200	104	121	76	74	61
23	289	96	200	95	188	9440	193	95	83	66	78	61
24	223	91	183	90	1730	1550	192	90	72	60	76	90
25	299	90	165	150	6490	874	363	88	69	62	78	220
26	1240	90	127	100	1160	632	810	83	79	63	68	173
27	564	89	194	75	743	474	1090	79	82	54	59	110
28	344	90	149	70	936	435	525	80	79	53	55	103
29	269	107	120	65	---	418	533	76	123	52	52	89
30	226	127	100	62	---	371	385	74	103	51	50	74
31	943	---	85	61	---	344	---	77	---	50	59	---
TOTAL	11495	5051	8376	4149	19885	38523	24563	7122	2951	2793	3225	2091
MEAN	371	168	270	134	710	1243	819	230	98.4	90.1	104	69.7
MAX	1630	726	2070	361	6490	9440	7930	994	262	535	315	220
MIN	86	89	85	58	58	278	192	74	64	50	50	38
MEAN≠	394	163	272	131	716	1242	819	225	100	83.4	109	61.5
CFSM≠	1.41	.58	.97	.47	2.57	4.45	2.94	.81	.36	.30	.39	.22
IN.≠	1.63	.65	1.12	.54	2.67	5.13	3.28	.93	.40	.34	.45	.25

CAL YR 1976 TOTAL 120877 MEAN 330 MAX 6190 MIN 53 MEAN≠ 330 CFSM≠ 1.18 IN.≠ 16.08
WTR YR 1977 TOTAL 130224 MEAN 357 MAX 9440 MIN 38 MEAN≠ 357 CFSM≠ 1.28 IN.≠ 17.40

≠ Adjusted for change in contents in Green Lane Reservoir.

01473000 PERKIOMEN CREEK AT GRATERFORD, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1975 to current year.

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER QUALITY DATA, NOVEMBER 1976 TO AUGUST 1977

DATE	TIME	CODE FOR AGENCY COLLECTING SAMPLE	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)
NOV 09...	0800	9813	162	300	--	3.0	4	--	125
FEB 15...	0900	9813	1440	260	--	1.0	10	--	76
MAY 12...	0830	9813	214	220	--	13.0	5	--	80
AUG 03...	0800	9813	97	295	7.5	22.0	25	8.5	86

DATE	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	TOTAL FLUORIDE (F) (MG/L)	TOTAL FILTRABLE RESIDUE (MG/L)
NOV 09...	0	0	27	14	68	30	27	.1	194
FEB 15...	0	0	20	6.5	44	34	35	.2	126
MAY 12...	0	0	19	12	80	30	19	.1	144
AUG 03...	--	0	22	7.5	58	20	22	.2	184

DATE	TOTAL NONFILTRABLE RESIDUE (MG/L)	TOTAL RESIDUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
NOV 09...	10	204	1.9	.05	.08	.24	340	.00
FEB 15...	22	148	2.4	.05	.49	.23	550	<.01
MAY 12...	12	156	1.4	.03	.09	.08	290	<.01
AUG 03...	18	--	1.4	.08	.25	--	1090	--

01473120 SKIPPACK CREEK NEAR COLLEGEVILLE, PA

LOCATION.--Lat 40°09'52", long 75°26'01", Montgomery County, Hydrologic Unit 02040203, on right bank 60 ft (18 m) downstream from two-span highway bridge, 1.5 mi (2.4 km) upstream from mouth, and 2 mi (3 km) southeast of Collegeville.

DRAINAGE AREA.--53.7 mi^2 (139.1 km^2).

PERIOD OF RECORD.--April 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 99.03 ft (30.184 m) above mean sea level. Prior to June 15, 1967, nonrecording gage at site 60 ft (18 m) upstream at same datum.

REMARKS.--Records fair except those for January and February, which are poor.

AVERAGE DISCHARGE.--11 years, 77.3 ft^3/s (2.189 m^3/s), 19.55 in/yr (497 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 40,400 ft^3/s (1,140 m^3/s) Sept. 13, 1971, gage height, 22.5 ft (6.86 m), from floodmark, from rating curve extended above 8,400 ft^3/s (238 m^3/s) on basis of slope-area measurement of peak flow; minimum, 0.1 ft^3/s (0.003 m^3/s) Sept. 12, 13, 1966; minimum gage height, 0.79 ft (0.241 m) Oct 3, 1968, July 31, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft^3/s (56.6 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 24	2230	5,260	149	9.55	2.911	Mar. 22	1730	6,570	186	10.48	3.194
Mar. 13	2345	*9,540	270	*12.22	3.725	Apr. 5	0500	5,200	147	9.51	2.899

Minimum discharge, 2.1 ft^3/s (0.059 m^3/s) May 29, 30, 31, June 6, July 31; minimum gage height, 0.79 ft (0.241 m) July 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	62	8.6	9.6	6.8	80	35	33	3.1	5.5	3.3	8.6
2	17	40	8.0	9.0	6.4	65	176	30	7.0	4.7	5.5	8.0
3	111	33	6.4	8.4	6.0	55	210	26	4.9	3.6	5.5	7.5
4	44	30	6.0	8.0	8.0	315	101	23	3.1	3.3	9.1	6.0
5	18	27	6.9	7.5	7.0	304	1970	79	2.4	3.3	3.9	5.1
6	13	24	5.1	7.0	6.5	118	299	65	3.7	4.7	4.3	5.1
7	12	20	307	10	6.2	87	139	60	14	16	15	5.5
8	10	18	97	8.0	6.0	70	101	37	6.0	11	4.7	6.4
9	85	17	57	20	5.6	60	80	33	20	7.5	3.3	6.4
10	45	17	34	76	28	54	68	32	26	5.1	3.6	6.4
11	21	16	30	379	176	48	59	25	12	3.9	31	6.4
12	17	15	27	50	567	43	52	19	8.6	3.9	6.4	6.9
13	13	13	24	30	685	1710	44	17	6.9	9.1	27	7.5
14	12	13	24	25	529	1580	39	15	6.9	4.7	22	7.5
15	11	12	18	30	200	281	32	13	11	3.6	15	6.4
16	9.8	12	18	20	60	157	28	11	9.1	3.3	8.0	6.4
17	8.9	11	18	18	40	104	24	9.6	6.9	2.7	12	15
18	7.7	11	16	15	30	151	21	8.7	6.4	3.0	27	7.0
19	7.3	11	13	13	27	117	21	15	6.0	2.7	9.7	8.0
20	26	11	14	12	25	90	18	9.3	5.5	3.6	9.1	10
21	133	9.9	28	11	24	87	16	7.3	12	5.5	8.0	6.0
22	33	8.9	39	10	23	1760	15	5.5	7.5	3.3	44	5.0
23	21	8.8	29	9.6	113	420	14	4.5	5.1	2.7	14	4.5
24	17	8.9	26	9.0	1070	164	16	4.5	4.7	2.7	8.6	5.0
25	21	8.8	24	15	836	104	41	4.2	4.3	3.6	10	20
26	76	7.9	14	13	154	81	124	4.1	6.4	12	8.6	10
27	41	8.3	37	11	108	67	103	3.6	5.5	4.7	7.5	7.0
28	27	7.8	15	10	120	60	56	3.2	5.5	2.7	8.6	9.0
29	22	11	13	9.0	---	56	64	2.6	17	2.4	6.4	8.0
30	19	17	12	8.0	---	49	41	2.2	8.6	2.4	6.0	7.0
31	121	---	11	7.2	---	43	---	2.4	---	2.4	6.9	---
TOTAL	1052.7	510.3	986.0	868.3	4873.5	8380	4007	604.7	246.1	149.6	354.0	227.6
MEAN	34.0	17.0	31.8	28.0	174	270	134	19.5	8.20	4.83	11.4	7.59
MAX	133	62	307	379	1070	1760	1970	79	26	16	44	20
MIN	7.3	7.8	5.1	7.0	5.6	43	14	2.2	2.4	2.4	3.3	4.5
CFSM	.63	.32	.59	.52	3.24	5.03	2.50	.36	.15	.09	.21	.14
IN.	.73	.35	.68	.60	3.38	5.81	2.78	.42	.17	.10	.25	.16

CAL YR 1976 TOTAL 17538.5 MEAN 47.9 MAX 1370 MIN 1.8 CFSM .89 IN 12.15
WTR YR 1977 TOTAL 22259.8 MEAN 61.0 MAX 1970 MIN 2.2 CFSM 1.14 IN 15.42

01473800 SCHUYLKILL RIVER AT MANAYUNK, PHILADELPHIA, PA

LOCATION.--Lat 40°01'41", long 75°13'44", Philadelphia County, Hydrologic Unit 02040203, at Green Lane Avenue Bridge, 5.5 mi (8.8 km) upstream from gaging station at Fairmount Dam, and 14.2 mi (22.3 km) upstream from mouth.

DRAINAGE AREA.--1,830 mi^2 (4,740 km^2), at Fairmount Dam.

PERIOD OF DAILY RECORD.--
SUSPENDED SEDIMENT DISCHARGE: November 1947 to current year.

REMARKS.--Mean discharges given are for *01474500* Schuylkill River at Philadelphia (Fairmount Dam). Daily records do not include water diverted by the city of Philadelphia for municipal water supply. Unpublished records of temperature of sediment samples available in the district office at Harrisburg.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily, 4,910 mg/L Dec. 30, 1948; minimum daily, 1 mg/L on many days.
SEDIMENT LOADS: Maximum daily, 650,000 tons (590,000 tonnes) (estimated) Aug 19, 1955; minimum daily, less than 0.05 ton (0.04 tonne) Sept. 2, 1966.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily, 1,400 mg/L Mar. 14; minimum daily, 1 mg/L on several days during Nov., Dec., and Jan.
SEDIMENT LOADS: Maximum daily, 103,000 tons (93,400 tonnes) Mar. 14; minimum daily, 1.8 tons (1.6 tonnes) Jan. 1.

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	1900	14	72	6710	41	743	1140	4	12
2	1770	12	57	5020	20	271	1040	3	8.4
3	2640	44	314	4230	15	171	930	3	7.5
4	4330	30	351	3800	7	72	917	1	2.5
5	3530	24	229	3460	5	47	864	2	4.7
6	2690	22	160	3100	4	33	879	1	2.4
7	2280	21	129	2810	4	30	3050	80	659
8	2030	20	110	2580	3	21	8500	300	6880
9	4280	185	3210	2340	3	19	4600	75	931
10	14700	368	14500	2140	3	17	3110	24	202
11	10300	140	3890	1980	3	16	2850	15	115
12	6640	33	592	1860	3	15	2470	10	67
13	4730	25	319	1750	3	14	2240	7	42
14	3800	19	195	1680	4	18	2200	6	36
15	3220	18	156	1680	4	18	1650	5	22
16	2730	18	133	1610	4	17	1610	5	22
17	2400	19	123	1510	4	16	1610	5	22
18	2110	17	97	1440	5	19	1570	4	17
19	1950	16	84	1400	6	23	1500	4	16
20	2200	20	119	1350	5	18	1380	5	19
21	8320	120	3300	1210	5	16	1540	5	21
22	10100	150	4090	1140	5	15	1410	5	19
23	6790	70	1280	1040	3	8.4	1210	5	16
24	4980	28	376	980	3	7.9	1220	6	20
25	4490	17	206	885	2	4.8	1100	4	12
26	6200	36	603	880	1	2.4	1120	3	9.1
27	6640	33	592	850	2	4.6	1150	4	12
28	5200	19	267	855	2	4.6	1120	4	12
29	4380	14	166	1140	4	12	1120	3	9.1
30	3820	11	113	1420	5	19	1030	2	5.6
31	4650	27	339	---	---	---	881	2	4.8
TOTAL	145800	---	36172	62850	---	1692.7	57011	---	9228.1

01473800 SCHUYLKILL RIVER AT MANAYUNK, PHILADELPHIA, PA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JANUARY			FEBRUARY			MARCH	
1	72	1	1.8	460	6	7.5	5020	36	485
2	49	1	2.0	455	6	7.4	3910	26	274
3	825	1	2.2	500	6	8.1	3210	23	199
4	982	2	5.3	579	6	9.4	3420	91	840
5	965	4	10	624	6	10	14600	340	13400
6	896	5	12	597	7	11	13000	335	11800
7	889	5	12	466	6	7.5	8360	80	1810
8	836	4	9.0	510	7	9.6	6150	36	598
9	777	4	8.4	545	5	7.4	4850	20	262
10	1360	20	73	594	3	4.8	4010	18	195
11	1450	9	35	700	5	9.5	3480	16	150
12	1040	5	14	1340	8	29	3050	15	124
13	901	6	15	2150	11	64	4990	90	1210
14	890	8	19	3100	19	159	23400	1400	103000
15	897	5	12	2890	16	125	13300	200	7180
16	954	5	13	2250	11	67	9150	73	1800
17	725	5	9.8	1660	10	45	6830	40	738
18	614	6	9.9	1300	7	25	5760	26	404
19	600	5	8.1	1160	6	19	6060	30	491
20	595	6	9.6	1170	6	19	5000	26	351
21	590	7	11	1170	5	16	4570	23	284
22	585	6	9.5	1020	5	14	11400	85	2620
23	600	5	8.1	970	4	10	27300	616	50000
24	651	4	7.0	2040	18	99	15100	195	7950
25	687	5	9.3	18900	275	14000	9900	78	2080
26	710	5	9.6	9400	215	5460	7440	42	844
27	697	6	11	5730	85	1320	6050	28	457
28	692	6	11	5130	68	942	5180	20	280
29	585	5	7.9	---	---	---	4720	18	229
30	476	7	9.0	---	---	---	4270	16	184
31	470	6	7.6	---	---	---	3720	13	131
TOTAL	24360	---	382.1	67410	---	22505.2	247200	---	210373

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	3220	12	104	2980	11	89	891	26	63
2	3310	18	161	2680	13	94	1300	28	98
3	9570	70	1810	2500	15	101	949	29	74
4	8160	95	2090	2400	17	110	849	27	62
5	23400	392	29200	3060	21	174	786	25	53
6	16000	145	6260	3630	17	167	803	26	56
7	10500	45	1280	3790	23	235	1040	28	79
8	8220	20	444	3410	21	193	1050	31	88
9	6680	14	253	2780	19	143	1220	32	105
10	5570	13	196	2580	18	125	1560	30	126
11	4890	11	145	2400	17	110	1570	26	110
12	4400	7	83	2110	16	91	1150	17	53
13	3920	7	74	1940	13	68	921	16	40
14	3510	8	76	1780	13	62	818	15	33
15	3160	8	68	1630	14	62	949	15	38
16	2860	9	69	1530	13	54	825	16	36
17	2700	10	73	1440	11	43	735	17	34
18	2540	11	75	1390	12	45	720	14	27
19	2370	11	70	1420	13	50	882	13	31
20	2260	11	67	1430	13	50	967	12	31
21	2150	11	64	1320	13	46	944	14	36
22	2010	12	65	1170	15	47	1030	15	42
23	1950	11	58	1100	16	48	781	14	30
24	1940	11	58	1040	15	42	632	13	22
25	3590	14	136	979	14	37	598	14	23
26	5390	15	218	921	15	37	611	28	46
27	5590	20	302	879	18	43	1320	37	132
28	4290	17	197	825	19	42	1190	38	122
29	4050	15	164	758	22	45	1410	29	110
30	3550	12	115	809	24	52	1160	23	72
31	---	---	---	790	25	53	---	---	---
TOTAL	161750	---	43975	57471	---	2558	29661	---	1872

01473800 SCHUYLKILL RIVER AT MANAYUNK, PHILADELPHIA, PA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JULY			AUGUST			SEPTEMBER	
1	858	22	51	746	33	66	966	44	115
2	731	20	39	1170	25	79	642	40	69
3	631	18	31	887	24	57	468	40	51
4	586	19	30	987	35	93	477	42	54
5	547	18	27	1170	33	104	582	48	75
6	551	17	25	813	28	61	612	44	73
7	846	19	43	861	25	58	539	42	61
8	1230	21	70	903	40	98	438	35	41
9	967	20	52	744	25	50	390	26	27
10	924	17	42	836	64	144	409	24	27
11	731	19	38	1020	34	94	381	18	19
12	858	22	51	1180	48	153	365	16	16
13	1640	17	75	1110	24	72	345	14	13
14	1530	18	74	1910	44	227	319	13	11
15	987	17	45	1580	32	137	315	12	10
16	668	17	31	1010	16	44	359	11	11
17	556	20	30	878	23	55	471	12	15
18	515	18	25	988	27	72	633	13	22
19	623	23	39	994	20	54	857	16	37
20	662	27	48	797	17	37	1450	28	110
21	1260	32	109	629	25	42	673	12	22
22	964	22	57	1350	38	139	609	11	18
23	682	23	42	920	23	57	612	11	18
24	567	22	34	983	21	56	937	10	25
25	559	23	35	796	20	43	2040	43	237
26	711	24	46	711	18	35	2390	36	232
27	713	25	48	614	17	28	2270	29	178
28	595	23	37	566	14	21	2280	28	172
29	462	22	27	513	11	15	1720	28	130
30	500	31	42	490	10	13	1360	26	95
31	488	43	57	517	14	20	---	---	---
TOTAL	24142	---	1400	28673	---	2224	25909	---	1984

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM
MAR								
05...	1040	14000	7.0	267	10100	40	55	67
23...	0620	34100	6.0	920	84700	42	53	72
APR								
05...	1910	25800	8.0	381	26500	38	56	72

DATE	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM	SUS. SED. SIEVE DIAM. % FINER THAN .500 MM	SUS. SED. SIEVE DIAM. % FINER THAN 1.00 MM	PER CENT COAL
MAR							
05...	74	80	89	95	98	100	17
23...	86	94	97	99	100	--	--
APR							
05...	85	95	97	99	100	--	--

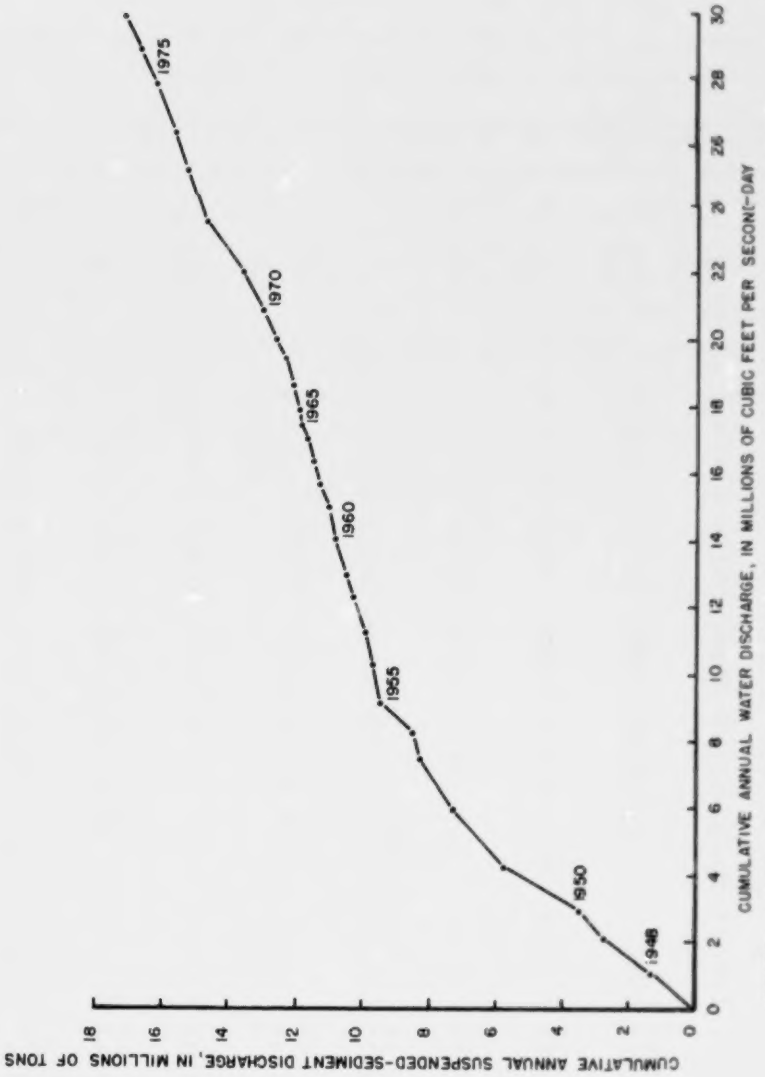

FIGURE —Double mass accumulation of annual suspended-sediment discharge versus annual water discharge, Schuylkill River at Manayunk, Philadelphia, Pa.

Table 2.--Suspended sediment concentration-duration table, Schuylkill River at Manayunk, Philadelphia, PA

Period	Mean daily concentration, in milligrams per liter, that was equaled or exceeded for indicated percentage of time													
	1	2	5	10	20	30	40	50	60	70	80	90	95	99
1977	360	245	91	50	29	24	19	16	14	10	6	4	3	2
1960-77	440	255	110	48	24	19	16	14	12	10	8	6	5	2

01473870 PINE RUN TRIBUTARY NEAR AMBLER, PA

LOCATION.--Lat 40°08'56", long 75°10'50", Montgomery County, Hydrologic Unit 02040203, on left bank 20 ft (6 m) upstream from Susquehanna Road, 1.5 mi (2.4 km) east of Fort Washington, 2.2 mi (3.5 km) west of Ambler, and 3 mi (4.8 km) northwest of Roslyn.

DRAINAGE AREA.--1.18 mi² (3.06 km²).

PERIOD OF RECORD.--October 1973 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Altitude of gage is 200 ft (61 m), from topographic map.

REMARKS.--Records fair except those for the period Dec. 30 to Feb. 23 and those below 0.5 ft³/s (0.014 m³/s), which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 450 ft³/s (12.7 m³/s) July 13, 1975, gage height, unknown, from flow-through-culvert study; no flow many days in January and July 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 30 ft³/s (0.85 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 24	1900	101	2.86	2.66	0.811	Aug. 1	2150	102	2.89	2.67	0.814
Mar. 22	1420	*181	5.13	*3.41	1.039	Aug. 22	0430	36	1.02	2.07	0.631
Apr. 5	0355	86	2.44	2.53	0.771	Sept.25	0650	54	1.53	2.24	0.683

No flow January 17-23, 29-31, July 3, 4, 5, 18, 19, 23, 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.11	.06	.03	.02	.01	.09	.51	.41	.10	.01	5.1	.03
2	.08	.05	.03	.01	.02	.08	1.2	.41	.18	.01	.32	.03
3	.26	.04	.03	.02	.05	.07	.77	.36	.07	.00	.12	.02
4	.11	.03	.04	.02	.04	.63	2.6	.41	.08	.00	.09	.02
5	.06	.03	.04	.01	.03	.32	19	1.3	.06	.00	.06	.01
6	.04	.03	.04	.02	.01	.13	2.4	.57	.14	.01	.27	.02
7	.03	.03	.41	.10	.01	.11	1.9	.41	.09	.03	.20	.02
8	.02	.03	.08	.01	.02	.09	1.7	.36	.06	.02	.09	.02
9	.24	.03	.05	.02	.03	.09	1.4	.41	.29	.01	.06	.02
10	.05	.03	.04	1.0	.05	.08	1.3	.32	.10	.01	.06	.02
11	.03	.03	.03	.20	.50	.08	1.2	.29	.07	.01	.08	.02
12	.02	.03	.04	.05	1.0	.08	1.1	.27	.06	.05	.06	.02
13	.02	.03	.03	.02	.40	2.2	1.0	.24	.05	.04	.12	.02
14	.02	.03	.02	.01	.20	.78	.92	.22	.05	.01	.70	.02
15	.02	.03	.03	.10	.05	.21	.84	.20	.09	.01	.22	.03
16	.02	.02	.03	.01	.02	.17	.84	.19	.05	.01	.14	.04
17	.02	.02	.02	.00	.01	.15	.77	.18	.04	.01	.16	.04
18	.02	.03	.02	.00	.02	.52	.77	.19	.04	.00	.18	.02
19	.02	.03	.02	.00	.03	.20	.70	.19	.03	.00	.13	.02
20	.44	.03	.03	.00	.10	.20	.63	.17	.07	.02	.11	.05
21	.17	.03	.05	.00	.07	.19	.57	.16	.06	.02	.09	.03
22	.06	.03	.04	.00	.05	28	.57	.14	.02	.01	1.9	.03
23	.03	.03	.04	.00	.08	2.2	.51	.13	.01	.00	.14	.04
24	.03	.03	.04	.02	14	1.4	.84	.11	.01	.00	.10	1.8
25	.04	.03	.05	.04	2.0	1.1	.84	.13	.01	.02	.07	4.5
26	.06	.03	.04	.01	.13	.92	2.2	.11	.01	.05	.05	.08
27	.04	.03	.06	.01	.11	.84	.77	.10	.01	.03	.03	.06
28	.04	.03	.05	.01	.11	.77	.63	.09	.08	.02	.02	.06
29	.04	.04	.04	.00	---	.77	.57	.08	.15	.02	.01	.05
30	.04	.03	.04	.00	---	.63	.46	.08	.01	.03	.01	.04
31	.17	---	.03	.00	---	.57	---	.08	---	.03	.02	---
TOTAL	2.35	.95	1.54	1.71	19.15	43.67	49.51	8.31	2.09	.49	10.71	7.18
MEAN	.076	.032	.050	.055	.68	1.41	1.65	.27	.070	.016	.35	.24
MAX	.44	.06	.41	1.0	14	28	19	1.3	.29	.05	5.1	4.5
MIN	.02	.02	.02	.00	.01	.07	.46	.08	.01	.00	.01	.01
CFSM	.06	.03	.04	.05	.58	1.20	1.40	.23	.06	.01	.30	.20
IN.	.07	.03	.05	.05	.60	1.38	1.56	.26	.07	.02	.34	.23

CAL YR 1976 TOTAL 249.04 MEAN .68 MAX 31 MIN .02 CFSM .58 IN 7.84
WTR YR 1977 TOTAL 147.66 MEAN .40 MAX 28 MIN .00 CFSM .34 IN 4.65

01473895 WISSAHICKON CREEK AT AMBLER, PA

LOCATION.--Lat 40°09'29", long 75°13'59", Montgomery County, Hydrologic Unit 02040203, 255 ft (78 m) downstream from bridge on Mt. Pleasant Avenue in Ambler.

DRAINAGE AREA.--not available.

PERIOD OF RECORD.--November 1975 to current year.

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, OCTOBER 1976 TO AUGUST 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA,MG) (MG/L)
OCT								
18...	1300	9813	1000	--	12.0	2	--	194
NOV								
29...	0900	9813	1200	--	7.0	4	--	230
DEC								
07...	0900	9813	800	--	4.0	30	--	154
JAN								
07...	1300	9813	1000	--	--	--	--	200
26...	1130	9813	1100	--	1.0	2	--	252
FEB								
07...	1300	9813	1000	--	.0	1	--	200
MAR								
14...	0930	9813	280	--	10.0	40	--	76
APR								
12...	1400	9813	430	--	18.0	2	--	98
MAY								
19...	0830	9813	900	--	20.0	3	--	175
JUN								
06...	1230	9813	800	--	18.0	3	--	170
JUL								
13...	0930	9813	800	--	24.0	1	--	170
AUG								
01...	1130	9813	600	8.7	24.5	2	9.0	160

DATE	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)
OCT									
18...	0	0	52	15	128	200	133	.1	692
NOV									
29...	0	0	53	24	144	400	133	.2	758
DEC									
07...	0	0	41	12	110	168	91	.2	544
JAN									
07...	0	0	57	14	134	170	133	.1	676
26...	0	0	52	30	138	185	168	.1	722
FEB									
07...	0	0	57	14	134	170	133	--	676
MAR									
14...	0	0	19	--	46	26	30	.1	198
APR									
12...	0	0	29	6.0	82	54	48	.1	276
MAY									
19...	--	0	40	18	128	130	183	.1	586
JUN									
06...	--	0	42	16	122	133	--	.1	550
JUL									
13...	--	0	39	18	112	128	109	.1	546
AUG									
01...	--	0	39	15	104	104	91	.1	496

01473895 WISSAHICKON CREEK AT AMBLER, PA--Continued

WATER-QUALITY DATA, OCTOBER 1976 TO AUGUST 1977

DATE	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	TOTAL RESI-DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
OCT 10...	<5	--	1.6	.00	.04	4.8	170	.11
NOV 29...	4	762	2.7	.10	.34	5.2	240	.04
DEC 07...	58	--	1.6	.05	.09	3.7	2760	.00
JAN 07...	0	--	2.3	--	1.6	4.1	--	<.10
26...	0	722	2.5	.04	3.0	3.1	130	.16
FEB 07...	0	676	2.3	.04	1.6	4.1	--	<.01
MAR 14...	32	230	1.6	.05	.35	.39	2640	<.01
APR 12...	2	278	2.0	.09	.24	.78	140	<.01
MAY 19...	10	596	2.5	.33	.47	4.7	230	.10
JUN 06...	12	562	3.0	.07	.20	3.3	230	.07
JUL 17...	12	--	.73	.03	.06	3.5	100	.07
AUG 01...	4	500	4.1	.13	.08	3.0	110	--

01473950 WISSAHICKON CREEK AT BELLS MILL ROAD, PHILADELPHIA, PA

LOCATION.--Lat 40°04'50", long 75°13'35", Philadelphia County, Hydrologic Unit 02040203, on left bank 300 ft (91 m) upstream from Bells Mill Road, 0.5 mi (0.8 km) south of Mt. St. Joseph College in Philadelphia.

DRAINAGE AREA.--53.6 mi² (139 km²).

PERIOD OF RECORD.--October 1965 to September 1970, May 1974 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 108.58 ft (33.095 m) above mean sea level.

REMARKS.--Records good except those for January and February, which are poor.

AVERAGE DISCHARGE.--8 years (1965-70, 1975-77), 67.5 ft³/s (1.912 m³/s), 17.09 in/yr (434 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,360 ft³/s (123 m³/s) Dec. 21, 1973, gage height, 9.68 ft (2.950 m); minimum, 5.4 ft³/s (0.15 m³/s) July 27, 1966, gage height, 2.81 ft (0.856 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 29, 1973 reached a stage of 12.66 ft (3.859 m), from floodmarks, discharge, 8,100 ft³/s (229 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft³/s (28.3 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 25	0145	1,780	50.4	6.84	2.085	Mar. 22	2045	*3,140	88.9	*8.48	2.585
Mar. 14	0130	1,360	38.5	6.24	1.902	Apr. 5	0800	1,970	55.8	7.10	2.164

Minimum discharge, 6.1 ft³/s (0.17 m³/s) July 24, 25, gage height, 2.85 ft (0.869 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	84	36	17	15	9.0	45	48	53	23	19	64	51
2	28	27	15	14	9.0	45	131	48	47	24	74	27
3	104	24	13	16	9.5	38	145	45	24	21	43	13
4	41	24	12	23	12	194	82	47	27	19	29	12
5	29	25	12	24	14	191	959	131	25	17	24	12
6	24	18	12	21	12	65	203	97	45	21	52	45
7	23	17	198	26	10	50	117	61	39	43	54	30
8	23	16	59	17	11	47	104	53	23	31	16	15
9	141	19	29	13	12	42	87	58	82	19	16	14
10	37	18	31	133	22	38	81	51	42	14	33	25
11	19	20	27	64	60	36	73	41	33	13	40	22
12	21	20	23	40	110	40	64	39	28	71	20	20
13	22	19	22	25	100	203	61	38	25	18	37	20
14	21	16	28	20	78	388	58	42	19	16	70	21
15	21	15	22	21	54	85	54	39	45	15	35	21
16	19	18	25	15	35	61	58	35	26	14	20	22
17	15	19	25	13	30	53	54	31	26	24	25	36
18	14	17	24	12	28	108	48	32	25	17	40	28
19	18	18	17	11	30	84	44	46	26	14	20	24
20	115	17	19	10	29	63	41	33	35	12	15	104
21	137	13	38	10	26	66	40	37	37	12	15	22
22	31	12	21	10	25	1070	41	34	21	11	150	16
23	23	13	20	11	30	311	44	29	17	10	40	16
24	18	14	18	14	244	121	59	24	17	9.3	20	207
25	25	17	17	15	590	90	105	24	24	22	30	275
26	67	12	19	14	77	76	217	24	25	27	20	43
27	30	12	19	13	54	68	143	22	19	11	21	34
28	23	12	27	12	61	64	72	29	41	8.9	25	50
29	24	23	26	11	---	64	99	26	94	8.9	18	24
30	22	19	21	10	---	57	62	26	23	20	15	21
31	131	---	16	9.0	---	52	---	23	---	20	25	---
TOTAL	1350	550	864	662.0	1781.5	3995	3394	1318	983	602.1	1106	1270
MEAN	43.5	18.3	27.9	21.4	63.6	129	113	42.5	32.8	19.4	35.7	42.3
MAX	141	36	198	133	590	1070	959	131	94	71	150	275
MIN	14	12	12	9.0	9.0	36	40	22	17	8.9	15	12
CFSM	.81	.34	.52	.40	1.19	2.41	2.11	.79	.61	.36	.67	.79
IN.	.94	.38	.60	.46	1.24	2.77	2.36	.91	.68	.42	.77	.88

CAL YR 1976 TOTAL 20194.4 MEAN 55.2 MAX 750 MIN 9.4 CFSM 1.03 IN 14.02
WTR YR 1977 TOTAL 17875.6 MEAN 49.0 MAX 1070 MIN 8.9 CFSM .91 IN 12.41

01474000 WISSAHICKON CREEK AT MOUTH, PHILADELPHIA, PA

LOCATION.--Lat 40°00'54", long 75°12'24", Philadelphia County, Hydrologic Unit 02040203, on left bank 100 ft (30 m) upstream from dam at Ridge Ave., 750 ft (229 m) upstream from mouth, 1,000 ft (305 m) northwest of Gustine Lake in Philadelphia.

DRAINAGE AREA.--64.0 mi² (166 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1897 to September 1903, January 1905 to July 1906, October 1965 to September 1970, May 1974 to current year. Prior to October 1965 published as "near Philadelphia".

REVISED RECORDS.--WSP 1302: 1905.

GAGE.--Water-stage recorder, concrete control, and crest-stage gage. Datum of gage is 26.41 ft (8.050 m) above mean sea level. Prior to October 1965, water-stage recorder at about same site and datum.

REMARKS.--Records good except those for the period January 18 to February 10, which are poor.

AVERAGE DISCHARGE.--9 years (1897-98, 1965-70, 1975-77), 84.4 ft³/s (2.390 m³/s), 17.91 in/yr (455 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,600 ft³/s (130 m³/s) Aug. 23, 1974, gage height, 6.63 ft (2.021 m); minimum daily observed, 2.0 ft³/s (0.057 m³/s) July 18, 19, 1905.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 29, 1973 reached a stage of 7.92 ft (2.414 m), discharge, 6,870 ft³/s (195 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,200 ft³/s (34.0 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 25	0245	1,920	54.4	4.66	1.420	Mar. 22	2145	*3,460	98.0	*5.88	1.792
Mar. 14	0215	1,510	42.8	4.29	1.308	Apr. 5	0900	2,270	64.3	4.97	1.515

Minimum discharge, 11 ft³/s (0.31 m³/s) July 29, gage height, 1.58 ft (0.482 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	116	49	30	21	14	57	55	66	34	28	74	75
2	40	39	28	20	14	54	136	61	66	30	106	40
3	113	36	26	21	15	49	179	58	35	29	66	27
4	51	35	24	25	18	137	104	63	32	28	41	22
5	34	37	22	30	19	210	1110	134	33	28	32	19
6	32	30	21	28	17	84	228	120	39	36	57	75
7	34	28	224	31	14	60	129	75	49	55	82	61
8	26	27	78	27	15	57	114	66	32	54	29	25
9	167	29	36	20	16	54	98	73	72	30	24	24
10	69	27	36	135	25	46	91	68	57	26	39	28
11	31	30	35	81	48	42	83	51	40	23	51	29
12	30	30	29	43	104	49	74	44	37	109	32	26
13	28	30	28	39	114	283	71	42	34	34	43	28
14	31	26	25	30	96	469	68	44	31	27	89	27
15	26	25	26	31	53	106	62	46	60	25	52	29
16	27	28	30	29	42	78	66	41	35	24	30	28
17	23	29	30	24	38	66	63	40	30	31	31	37
18	22	28	30	18	34	124	58	42	35	29	61	39
19	24	27	24	17	34	109	51	57	37	26	29	85
20	158	28	25	16	35	75	48	41	38	23	24	164
21	200	24	42	16	33	81	67	41	44	25	22	37
22	42	22	30	16	31	1180	67	41	32	23	195	31
23	34	22	26	17	37	431	52	39	27	18	42	28
24	29	23	24	21	212	136	66	33	25	16	34	275
25	35	27	23	22	624	102	128	32	29	20	38	359
26	75	23	26	21	98	88	172	32	32	39	27	59
27	41	21	26	19	69	78	144	30	31	25	28	46
28	33	22	30	17	75	74	90	33	105	18	30	64
29	31	36	32	16	---	74	113	34	127	13	27	37
30	32	33	29	15	---	67	74	33	35	16	27	31
31	158	---	23	14	---	62	---	33	---	25	38	---
TOTAL	1792	871	1118	880	1944	4582	3821	1613	1313	933	1500	1855
MEAN	57.8	29.0	36.1	28.4	69.4	148	127	52.0	43.8	30.1	48.4	61.8
MAX	200	49	224	135	624	1180	1110	134	127	109	195	359
MIN	22	21	21	14	14	42	47	30	25	13	22	19
CFSM	.90	.45	.56	.44	1.08	2.31	1.98	.81	.68	.47	.76	.97
IN.	1.04	.51	.65	.51	1.13	2.66	2.22	.94	.76	.54	.87	1.08

CAL YR 1976 TOTAL 26276 MEAN 71.8 MAX 859 MIN 16 CFSM 1.12 IN 15.27
WTR YR 1977 TOTAL 22222 MEAN 60.9 MAX 1180 MIN 13 CFSM .95 IN 12.92

01474000 WISSAHICKON CREEK AT MOUTH, PHILADELPHIA, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1975 to current year.

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COLLECTING SAMPLE	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	HARDNESS (CA,MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT 19...	1030	9813	21	800	9.0	3	190	0	0	51	15	172
NOV 30...	0930	9813	37	800	3.0	4	205	--	0	48	21	192
DEC 27...	0900	9813	30	750	1.0	6	208	0	0	48	21	184
JAN 26...	1430	9813	21	700	2.0	5	200	0	0	45	21	188
FEB 07...	1200	9813	14	1000	.0	4	260	0	0	56	29	206
MAR 14...	1000	9813	313	250	10.0	85	72	--	0	17	7.0	48
APR 12...	1300	9813	72	600	18.0	3	132	0	0	38	9.0	108
MAY 19...	1500	9813	66	700	21.0	2	170	--	0	41	16	140
JUN 06...	1200	9813	34	600	17.0	2	173	--	0	42	16	160
JUL 13...	1000	9813	34	335	24.0	15	80	--	0	20	7.5	80

DATE	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	TOTAL FLUORIDE (F) (MG/L)	TOTAL FILTRABLE RESIDUE (MG/L)	TOTAL NONFILTRABLE RESIDUE (MG/L)	TOTAL RESIDUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
OCT 19...	90	78	<.1	498	<5	--	4.9	.30	4.5	4.0	200	.07
NOV 30...	90	78	.1	500	10	510	5.5	.19	8.9	5.5	300	.11
DEC 27...	85	83	1.5	454	12	466	3.6	.13	7.0	2.9	260	.05
JAN 26...	64	113	.1	464	2	466	3.2	.07	8.7	3.5	200	.38
FEB 07...	84	150	.1	596	12	608	3.3	.14	9.5	5.0	160	.40
MAR 14...	24	28	.1	186	118	304	1.6	.07	.43	.54	7100	<.01
APR 12...	50	52	.1	320	8	328	2.0	.24	1.9	1.0	210	<.01
MAY 19...	60	83	.1	424	4	428	3.3	.61	2.9	3.7	190	.17
JUN 06...	66	65	1.0	410	10	420	3.6	.48	2.3	2.9	230	--
JUL 13...	20	31	.1	184	18	--	1.5	.35	2.9	1.7	740	<.01

01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA

LOCATION.--Lat 39°58'00", long 75°11'20", Philadelphia County, Hydrologic Unit 02040203, on right bank 150 ft (46 m) upstream from Fairmount Dam, 1,500 ft (457 m) upstream from Spring Garden Street Bridge, in Philadelphia, and 8.7 mi (14.0 km) upstream from mouth. Water-quality sampling site 1.6 mi (2.6 km) upstream.

DRAINAGE AREA.--1,893 mi² (4,903 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1931 to current year. Records for January 1898 to December 1912, published in WSP 35, 48, 65, 82, 97, 125, 166, 202, 241, 261, 281, 301, 381, have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 756: Drainage area. WSP 1302: 1936(M), WSP 1432: 1945. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 5.74 ft (1.750 m) above mean sea level. Prior to Nov. 25, 1956, water-stage recorder at site on right bank just upstream from Fairmount Dam at same datum. Nov. 26, 1956 to Oct. 6, 1966, water-stage recorder at site on left bank 40 ft (12 m) upstream from Fairmount Dam at same datum.

REMARKS.--Records good. Some regulation by reservoirs above station. Records of daily discharge do not include diversion above station by city of Philadelphia for municipal water supply.

AVERAGE DISCHARGE.--46 years, 2,910 ft³/s (82.41 m³/s), 20.87 in/yr (530 mm/yr), adjusted for diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 103,000 ft³/s (2,920 m³/s) June 23, 1972, gage height, 14.65 ft (4.465 m); no flow over dam at times; minimum daily, 0.6 ft³/s (0.02 m³/s) Sept. 2, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 17.0 ft (5.18 m) Oct. 4, 1896, discharge, 135,000 ft³/s (3,820 m³/s), from rating curve extended above 46,000 ft³/s (1,300 m³/s). Flood of Mar. 1, 1902, reached a stage of 14.8 ft (4.511 m), discharge, 98,000 ft³/s (2,780 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 18,000 ft³/s (510 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 25	0515	25,800	731	9.34	2.847	Mar. 23	0015	*39,200	1,110	*10.55	3.216
Mar. 14	0515	30,500	864	9.79	2.984	Apr. 5	1145	34,100	966	10.12	3.085

Minimum discharge, 280 ft³/s (7.93 m³/s) Sept. 14, gage height, 5.70 ft (1.737 m); minimum daily, 315 ft³/s (8.92 m³/s) Sept. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1900	6710	1140	672	460	5020	3220	2980	891	858	746	966
2	1770	5020	1040	749	455	3910	3310	2680	1300	731	1170	642
3	2640	4230	930	825	500	3210	9570	2500	949	631	887	468
4	4330	3800	917	982	579	3420	8160	2400	849	586	987	477
5	3530	3460	864	965	624	14600	23400	3060	786	547	1170	582
6	2690	3100	879	896	597	13000	16000	3630	803	551	813	612
7	2280	2810	3050	889	466	8360	10500	3790	1040	846	861	539
8	2030	2580	8500	836	510	6150	8220	3410	1050	1230	903	438
9	4280	2340	4600	777	545	4850	6680	2780	1220	967	744	390
10	14700	2140	3110	1360	594	4010	5570	2580	1560	924	836	409
11	10300	1980	2850	1450	700	3480	4890	2400	1570	731	1020	381
12	6640	1860	2470	1040	1340	3050	4400	2110	1150	858	1180	365
13	4730	1750	2240	901	2150	4990	3920	1940	921	1640	1110	345
14	3800	1680	2200	890	3100	23400	3510	1780	818	1530	1910	319
15	3220	1680	1650	897	2890	13300	3160	1630	949	987	1580	315
16	2730	1610	1610	954	2250	9150	2860	1530	825	668	1010	359
17	2400	1510	1610	725	1660	6830	2700	1440	735	556	878	471
18	2110	1440	1570	614	1300	5760	2540	1390	720	515	908	633
19	1950	1400	1500	600	1160	6060	2370	1420	882	623	994	857
20	2200	1350	1380	595	1170	5000	2260	1430	967	662	797	1450
21	8320	1210	1540	590	1170	4570	2150	1320	944	1260	629	673
22	10100	1140	1410	585	1020	11400	2010	1170	1030	964	1350	609
23	6790	1040	1210	600	970	27300	1950	1100	781	682	920	612
24	4980	980	1220	651	2040	15100	1940	1040	632	567	983	937
25	4490	885	1100	687	18900	9900	3590	979	598	559	796	2040
26	6200	880	1120	710	9400	7440	5390	921	611	711	711	2390
27	6640	850	1150	697	5730	6050	5590	879	1320	713	614	2270
28	5200	855	1120	692	5130	5180	4290	825	1190	595	566	2280
29	4380	1140	1120	585	---	4720	4050	758	1410	462	513	1720
30	3820	1420	1030	476	---	4270	3550	809	1160	500	490	1360
31	4650	---	881	470	---	3720	---	790	---	488	517	---
TOTAL	145800	62850	57011	24360	67410	247200	161750	57471	29661	24142	28673	25909
MEAN	4703	2095	1839	786	2408	7974	5392	1854	989	779	925	864
MAX	14700	6710	8500	1450	18900	27300	23400	3790	1570	1640	1910	2390
MIN	1770	850	864	470	455	3050	1940	758	598	462	490	315
(/)	273	270	278	286	304	285	278	299	298	341	303	285
MEAN≠	4976	2365	2117	1072	2712	8259	5670	2153	1287	1120	1228	1149
CFSM≠	2.63	1.25	1.12	.57	1.43	4.36	3.00	1.14	.68	.59	.65	.61
IN.≠	3.03	1.40	1.29	.66	1.49	5.03	3.35	1.31	.76	.68	.75	.68

CAL YR 1976 TOTAL 1029562 MEAN 2813 MAX 44800 MIN 448 MEAN≠ 3098 CFSM≠ 1.64 IN.≠ 22.28
WTR YR 1977 TOTAL 932237 MEAN 2554 MAX 27300 MIN 315 MEAN≠ 2846 CFSM≠ 1.50 IN.≠ 20.41

/ Diversion, equivalent in cubic feet per second, for municipal water supply, furnished by City of Philadelphia.
≠ Adjusted for diversion.

01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1945 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1963 to current year.
pH: January 1968 to current year.
WATER TEMPERATURES: October 1945 to current year.
DISSOLVED OXYGEN: January 1966 to current year.

REMARKS.--Water-quality recorder located at Belmont raw-water pumping station on west side of river near Columbia Bridge.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 972 micromhos Jun. 25, 1965; minimum, 128 micromhos Sept. 14, 1971.
pH: Maximum, 10.1 Aug. 12, 1969; minimum, 5.7 Dec. 21, 1973.
WATER TEMPERATURES: Maximum, 31.5°C Jul. 10, 1974; minimum, freezing point on many days during winter periods.
DISSOLVED OXYGEN: Maximum, 15.5 mg/L Feb 4, 1973; minimum, 0.4 mg/L July 24, 1971.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 673 micromhos Jan. 10; minimum, 136 micromhos Apr. 5.
pH: Maximum, 9.4 Jun. 16; minimum, 6.8 Oct. 10, 11.
WATER TEMPERATURES: Maximum, 32.5°C Jul. 19, 21; minimum, 1.0°C Jan. 19-24.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	FECAL COLIFORM .7UM-MF (COL./100 ML)	FECAL STREPTOCOCCI KF AGAR (COL. PER 100 ML)	HARDNESS (CA,MG) (MG/L)
OCT 05...	1115	3480	330	7.2	16.5	2	8.7	--	B3400	B1400	120
DEC 08...	1310	9230	290	7.5	2.8	63	11.1	--	80	B22000	110
JAN 11...	1130	1420	490	7.8	1.7	2	11.9	--	110	1600	170
FEB 08...	1050	734	530	7.8	1.4	3	11.9	--	270	500	200
MAR 09...	1030	4890	260	7.2	5.5	10	11.5	--	200	430	82
APR 07...	1045	10500	185	7.2	9.8	22	11.2	--	2500	B1960	76
MAY 24...	1400	1040	362	8.3	27.6	2	8.9	10	1200	B1700	140
JUN 22...	1525	980	430	8.8	27.3	1	10.6	--	1600	1860	160
AUG 09...	0800	760	440	7.3	29.0	1	6.7	--	B19200	4400	160
SEP 28...	1330	2197	470	7.9	22.5	5	8.2	--	7670	280	170

DATE	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)
OCT 05...	55	30	10	16	3.9	74	0	61	7.5	56	23
DEC 08...	59	27	9.2	12	3.7	57	0	47	2.9	51	19
JAN 11...	98	42	16	30	3.2	89	0	73	2.3	89	45
FEB 08...	100	50	18	31	3.5	118	0	97	3.0	110	46
MAR 09...	48	21	7.1	9.7	2.1	41	0	34	4.1	39	17
APR 07...	43	20	6.4	8.0	2.1	41	0	34	4.1	32	12
MAY 24...	77	34	14	25	3.4	80	0	66	.6	77	34
JUN 22...	83	41	15	27	4.0	99	0	81	.3	86	38
AUG 09...	93	40	15	24	4.1	84	0	69	6.7	80	33
SEP 28...	100	40	16	23	4.1	83	0	68	1.7	98	30

01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL PHYTOPLANKTON (CELLS PER ML)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM
OCT 05...	.2	13	210	189	2.0	.90	2.9	.33	--	3900	93
DEC 08...	.1	6.8	169	157	2.0	2.0	4.0	.47	21	17000	99
JAN 11...	.2	8.3	299	278	2.9	1.5	4.4	.40	--	6300	83
FEB 08...	.3	9.1	346	326	3.2	2.1	5.3	.45	--	7800	100
MAR 09...	.1	7.6	140	124	2.2	1.4	3.6	.14	4.1	--	100
APR 07...	.1	7.2	141	108	2.2	.70	2.9	.09	--	--	98
MAY 24...	.2	5.3	298	232	2.1	1.1	3.2	.27	--	65000	88
JUN 22...	.3	.2	310	260	1.9	1.5	3.4	.36	4.6	42000	90
AUG 09...	.2	6.9	272	245	2.3	1.7	4.0	.41	--	93000	92
SEP 28...	.1	8.4	266	261	2.8	1.2	4.0	.31	8.9	22000	77

DATE	TIME	TOTAL ARSENIC (AS) (UG/L)	SUSPENDED ARSENIC (AS) (UG/L)	DISSOLVED ARSENIC (AS) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	SUSPENDED CADMIUM (CD) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	SUSPENDED CHROMIUM (CR) (UG/L)	DISSOLVED CHROMIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)
DEC 08...	1310	3	2	1	2	1	1	10	0	<10	4
MAR 09...	1030	1	0	1	0	0	1	10	0	<10	5
JUN 22...	1525	4	0	4	0	0	0	10	4	6	0
SEP 28...	1330	1	0	1	0	0	0	20	20	0	2

DATE	SUSPENDED COBALT (CO) (UG/L)	DISSOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	SUSPENDED COPPER (CU) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	SUSPENDED LEAD (PB) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	TOTAL MANGANESE (MN) (UG/L)
DEC 08...	2	2	10	0	10	3100	170	24	17	7	380
MAR 09...	2	3	10	10	0	990	30	15	12	3	260
JUN 22...	0	0	10	2	8	230	60	12	7	5	110
SEP 28...	2	0	12	0	12	510	60	8	1	7	170

DATE	SUSPENDED MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	SUSPENDED MERCURY (HG) (UG/L)	DISSOLVED MERCURY (HG) (UG/L)	TOTAL SELENIUM (SE). (UG/L)	SUSPENDED SELENIUM (SE) (UG/L)	DISSOLVED SELENIUM (SF) (UG/L)	TOTAL ZINC (ZN) (UG/L)	SUSPENDED ZINC (ZN) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
DEC 08...	220	160	<.5	.0	<.5	0	0	0	60	40	20
MAR 09...	70	190	<.5	.0	<.5	0	0	0	70	40	30
JUN 22...	100	10	.2	.0	.2	0	0	0	40	30	10
SEP 28...	0	170	<.5	.0	<.5	0	0	0	90	60	30

01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA--Continued

PHYTOPLANKTON ANALYSES, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	OCT 5,76		DEC 8,76		JAN 11,77		FEB 8,77	
TIME	1115		1310		1130		1050	
TOTAL CELLS/ML	3900		17000		6300		7800	
DIVERSITY: DIVISION	1.2		0.7		0.5		0.2	
.CLASS	1.2		0.7		0.5		0.2	
..ORDER	1.8		1.3		0.6		0.3	
...FAMILY	3.0		2.7		0.8		0.3	
....GENUS	3.4		3.0		1.6		0.9	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...CHARACIACEAE								
....SCHROEDERIA	--	-	--	-	--	-	--	-
...COELASTRACEAE								
....COELASTRUM	--	-	--	-	--	-	--	-
...HYDRODICTYACEAE								
....PEDIASTRUM	--	-	--	-	--	-	--	-
...MICRACTINIACEAE								
....GOLENKINIA	--	-	--	-	*	0	--	-
....MICRACTINIUM	--	-	--	-	--	-	--	-
...OOCYSTACEAE								
....ANKISTRODESMUS	--	-	*	0	--	-	--	-
....CHODATELLA	--	-	--	-	--	-	--	-
....DICTYOSPHAERIUM	670#	17	--	-	--	-	--	-
....FRANCEIA	--	-	--	-	--	-	--	-
....KIRCHNERIELLA	110	3	--	-	--	-	--	-
....QUADRIGULA	--	-	--	-	--	-	--	-
....TETRAEDRON	--	-	--	-	--	-	--	-
...SCENEDESMACEAE								
....ACTINASTRUM	--	-	--	-	--	-	--	-
....SCENEDESMUS	670#	17	410	2	--	-	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	--	-	--	-	--	-	*	0
..ZYGNEMATALES								
...DESMIDIACEAE								
....EUASTRUM	56	1	--	-	--	-	--	-
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	450	11	480	3	290	5	52	1
....MELOSIRA	110	3	2600#	15	--	-	*	0
....STEPHANODISCUS	--	-	140	1	--	-	--	-
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	*	0	--	-	*	0	--	-
....COCCONEIS	--	-	--	-	--	-	*	0
....RHOICOSPHENIA	110	3	140	1	--	-	*	0
...CYMBELLACEAE								
....AMPHORA	56	1	140	1	*	0	--	-
....CYMBELLA	--	-	*	0	*	0	--	-
...DIATOMACEAE								
....DIATOMA	--	-	340	2	*	0	--	-
...FRAGILARIACEAE								
....ASTERIONELLA	56	1	--	-	--	-	--	-
....FRAGILARIA	56	1	5100#	30	--	-	--	-
....SYNEDRA	390	10	280	2	*	0	*	0
...GOMPHONEMATACEAE								
....GOMPHONEMA	170	4	620	4	*	0	*	0
...MERIDIONACEAE								
....MERIDION	--	-	--	-	*	0	*	0
...NAVICULACEAE								
....NAVICULA	670#	17	2500	15	39	1	100	1
...NITZSCHIACEAE								
....NITZSCHIA	56	1	2100	13	100	2	*	0
...SURIRELLACEAE								
....SURIRELLA	56	1	--	-	*	0	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

SCHUYLKILL RIVER BASIN

01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA--Continued

PHYTOPLANKTON ANALYSES, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	MAY 24.77	JUN 22.77	AUG 9.77	SEP 28.77
TIME	1400	1525	0800	1330
TOTAL CELLS/ML	65000	42000	93000	22000
DIVERSITY: DIVISION	0.7	1.3	1.3	0.9
.CLASS	0.7	1.3	1.3	0.9
..ORDER	1.2	1.3	1.4	1.6
...FAMILY	1.9	1.8	2.3	1.8
....GENUS	2.1	2.6	2.9	1.9

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...CHARACIACEAE								
....SCHROEDERIA	--	-	*	0	--	-	--	-
...COELASTRACEAE								
....COELASTRUM	--	-	1500	4	--	-	--	-
...HYDRODICTYACEAE								
....PEDIASTRUM	--	-	940	2	4900	5	570	3
...MICRACTINIACEAE								
....GOLENKINIA	3600	6	--	-	--	-	--	-
....MICRACTINIUM	--	-	220	1	1200	1	--	-
...OOCYSTACEAE								
....ANKISTRODESMUS	2800	4	--	-	5500	6	640	3
....CHODATELLA	2800	4	--	-	1800	2	--	-
....DICTYOSPHAERIUM	--	-	--	-	8300	9	--	-
....FRANCEIA	--	-	--	-	--	-	210	1
....KIRCHNERIELLA	400	1	*	0	--	-	500	2
....QUADRIGULA	--	-	290	1	--	-	--	-
....TETRAEDRON	--	-	--	-	--	-	*	0
...SCENEDESMACEAE								
....ACTINASTRUM	--	-	10000#	25	12000	13	--	-
....SCENEDESMUS	36000#	56	9600#	23	30000#	32	430	2
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	6900	10	--	-	--	-	--	-
..ZYGNEMATALES								
...DESMIDIACEAE								
....EUASTRUM	--	-	--	-	--	-	--	-
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	11000#	16	9400#	22	8000	9	850	4
....MELOSIRA	--	-	--	-	--	-	--	-
....STEPHANODISCUS	810	1	6300	15	1200	1	--	-
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	--	-	--	-	--	-	--	-
....COCCONEIS	--	-	--	-	--	-	--	-
....RHOICOSPHENIA	--	-	--	-	--	-	--	-
...CYMBELLACEAE								
....AMPHORA	--	-	--	-	--	-	--	-
....CYMBELLA	--	-	--	-	--	-	--	-
...DIATOMACEAE								
....DIATOMA	--	-	--	-	--	-	--	-
...FRAGILARIACEAE								
....ASTERIONELLA	--	-	--	-	--	-	--	-
....FRAGILARIA	--	-	500	1	--	-	--	-
....SYNEDRA	--	-	--	-	1500	2	430	2
...GOMPHONEMATACEAE								
....GOMPHONEMA	--	-	--	-	--	-	*	0
...MERIDIONACEAE								
....MERIDION	--	-	--	-	--	-	--	-
...NAVICULACEAE								
....NAVICULA	--	-	--	-	--	-	210	1
...NITZSCHIACEAE								
....NITZSCHIA	1200	2	--	-	620	1	--	-
...SURIRELLACEAE								
....SURIRELLA	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA--Continued

PHYTOPLANKTON ANALYSES, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	OCT 5,76		DEC 8,76		JAN 11,77		FEB 8,77	
TIME	1115		1310		1130		1050	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROCCOCCALES								
...CHROCCOCCAEAE								
....AGMENELLUM	220	6	--	-	--	-	--	-
....ANACYSTIS	--	-	--	-	77	1	--	-
..HORMOGONALES								
...NOSTOCACEAE								
....ANABAENA	*	0	--	-	--	-	--	-
...OSCILLATORIACEAE								
....LYNGBYA	--	-	--	-	1800#	28	950	12
....OSCILLATORIA	--	-	1900	11	3900#	61	6600#	84
...RIVULARIACEAE								
....RAPHIDIOPSIS	--	-	--	-	--	-	*	0
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....EUGLENA	--	-	--	-	--	-	--	-
....PHACUS	--	-	--	-	--	-	*	0
....TRACHELOMONAS	--	-	--	-	--	-	*	0
PYRRHOPHYTA (FIRE ALGAE)								
.DINOPHYCEAE								
..PERIDINIALES								
...GLENODINIACEAE								
....GLENODINIUM	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

DATE	MAY 24,77		JUN 22,77		AUG 9,77		SEP 28,77	
TIME	1400		1525		0800		1330	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROCCOCCALES								
...CHROCCOCCAEAE								
....AGMENELLUM	--	-	--	-	--	-	--	-
....ANACYSTIS	--	-	2700	6	17000#	18	14000#	62
..HORMOGONALES								
...NOSTOCACEAE								
....ANABAENA	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE								
....LYNGBYA	--	-	--	-	--	-	--	-
....OSCILLATORIA	--	-	--	-	--	-	4400#	20
...RIVULARIACEAE								
....RAPHIDIOPSIS	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....EUGLENA	--	-	--	-	620	1	--	-
....PHACUS	--	-	--	-	--	-	*	0
....TRACHELOMONAS	--	-	--	-	--	-	--	-
PYRRHOPHYTA (FIRE ALGAE)								
.DINOPHYCEAE								
..PERIDINIALES								
...GLENODINIACEAE								
....GLENODINIUM	--	-	--	-	*	0	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 °C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	429	377	404	304	249	282	---	---	---	455	412	431
2	437	366	402	311	234	271	---	---	---	448	418	429
3	417	334	373	293	234	263	---	---	---	460	418	432
4	389	304	344	296	239	269	---	---	---	456	431	441
5	362	285	326	299	240	275	---	---	---	466	429	443
6	359	286	330	330	251	287	---	---	---	457	426	439
7	368	297	335	332	266	301	469	420	444	489	424	449
8	376	306	341	335	277	310	434	262	321	514	418	457
9	362	296	335	339	273	310	367	283	317	457	417	435
10	355	210	272	347	284	311	348	286	308	673	433	529
11	236	171	192	348	289	323	343	283	311	579	477	506
12	231	187	200	372	302	330	341	276	299	568	537	554
13	224	201	213	366	309	339	344	281	309	575	532	547
14	280	223	237	361	318	342	343	284	308	537	476	503
15	297	246	275	387	313	343	352	302	323	525	469	494
16	333	270	297	368	317	341	353	300	328	545	472	500
17	334	271	307	396	326	357	377	316	343	572	502	542
18	338	294	315	390	337	367	399	332	352	555	508	530
19	355	294	325	400	341	364	409	348	368	535	484	505
20	366	285	328	400	343	373	409	357	381	512	482	499
21	361	296	333	413	362	387	418	343	373	528	484	508
22	308	247	273	424	370	392	391	348	363	525	488	500
23	271	203	227	425	371	390	396	347	362	536	487	501
24	250	205	228	428	371	392	412	348	369	508	481	493
25	273	225	249	434	372	393	410	363	381	526	483	501
26	305	236	269	421	362	383	450	371	409	548	502	523
27	296	242	268	400	356	373	439	387	409	528	495	507
28	281	237	263	433	364	390	461	404	424	533	495	513
29	276	239	259	475	386	420	458	407	424	560	499	532
30	295	244	267	456	407	432	443	401	415	547	506	531
31	300	249	277	---	---	---	424	398	409	541	500	519
MONTH	437	171	292	475	234	344	469	262	362	673	412	493

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	547	503	521	306	257	285	270	253	263	252	242	247
2	557	516	537	319	260	284	275	269	272	251	243	247
3	567	521	542	285	273	280	282	226	258	---	---	---
4	553	511	532	291	284	287	234	216	224	---	---	---
5	573	521	545	298	237	273	224	136	176	---	---	---
6	578	537	557	233	186	200	189	141	164	---	---	---
7	566	518	542	204	188	192	190	178	185	---	---	---
8	556	516	534	214	204	209	199	189	194	---	---	---
9	555	507	527	---	---	---	206	198	203	267	258	264
10	543	503	522	---	---	---	218	205	210	264	256	260
11	549	510	525	---	---	---	228	215	221	267	259	262
12	597	510	548	---	---	---	232	225	230	280	265	271
13	580	498	538	---	---	---	233	159	220	280	270	275
14	529	431	472	---	---	---	---	---	---	303	279	293
15	466	388	416	---	---	---	---	---	---	315	302	310
16	450	386	409	190	174	185	---	---	---	319	309	315
17	451	391	412	220	184	201	---	---	---	318	308	312
18	440	396	412	232	212	222	---	---	---	325	315	320
19	434	377	402	303	226	258	---	---	---	326	317	321
20	451	383	409	307	251	280	---	---	---	340	325	328
21	451	390	418	311	256	284	297	287	291	341	330	337
22	457	406	426	325	191	279	312	295	300	356	341	350
23	493	426	445	231	164	201	318	312	315	365	353	361
24	490	413	443	228	192	214	333	317	326	384	357	369
25	426	210	269	242	201	222	334	308	322	389	376	382
26	351	259	298	257	233	242	307	277	299	390	363	377
27	332	251	296	270	244	259	275	245	262	387	370	377
28	315	261	287	288	255	271	249	241	246	383	359	372
29	---	---	---	297	229	253	253	239	245	375	359	366
30	---	---	---	246	234	238	266	238	251	390	372	382
31	---	---	---	253	244	248	---	---	---	390	374	383
MONTH	597	210	457	325	164	244	334	136	247	390	242	323

01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	391	375	384	434	413	422	483	399	436	424	413	418
2	397	359	381	423	414	418	444	312	395	429	411	420
3	406	382	396	440	422	431	459	444	454	433	413	423
4	398	344	369	457	438	449	447	422	434	436	427	432
5	354	341	347	465	453	457	447	417	433	432	406	421
6	381	347	353	458	443	449	445	414	430	411	379	399
7	403	381	393	455	436	445	421	393	404	411	382	396
8	410	402	406	453	439	447	457	419	436	462	393	435
9	414	386	403	439	406	421	444	420	430	478	461	468
10	426	391	413	406	392	397	454	425	436	494	476	486
11	409	380	396	397	381	388	481	459	472	493	477	486
12	397	378	386	411	382	397	482	441	465	505	484	494
13	406	391	400	412	363	384	463	452	456	503	492	497
14	405	372	389	447	418	434	465	433	449	495	490	493
15	382	368	373	486	433	457	459	431	447	498	490	493
16	407	384	399	433	402	415	429	392	408	513	496	503
17	409	398	403	402	346	380	404	396	401	532	512	522
18	407	400	404	348	299	329	395	360	369	544	530	535
19	409	401	405	367	316	343	367	335	349	605	495	551
20	415	403	411	379	369	375	347	334	340	482	360	410
21	419	412	416	410	378	397	348	340	346	518	474	509
22	428	412	421	461	413	446	352	316	334	543	512	530
23	419	396	408	466	460	462	380	341	370	577	526	541
24	402	394	398	467	453	461	380	353	366	527	408	478
25	401	392	397	463	453	458	370	356	365	467	412	436
26	396	380	388	456	398	423	401	365	380	469	453	463
27	392	377	385	445	426	437	422	400	412	469	430	444
28	402	379	394	465	443	455	426	417	423	446	405	427
29	403	315	359	467	441	453	425	411	418	457	425	439
30	443	404	428	448	436	442	428	414	420	469	434	452
31	---	---	---	447	430	439	457	414	426	---	---	---
MONTH	443	315	394	486	299	423	483	312	410	605	360	467

PH (UNITS), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.2	7.0	7.1	7.5	7.4	7.4	---	---	---	7.9	7.8	7.8
2	7.2	7.1	7.2	7.5	7.4	7.4	---	---	---	7.9	7.8	7.8
3	7.2	7.1	7.2	7.4	7.3	7.4	---	---	---	7.9	7.8	7.8
4	7.3	7.2	7.2	7.4	7.4	7.4	---	---	---	7.9	7.8	7.8
5	7.2	7.2	7.2	7.4	7.4	7.4	---	---	---	7.9	7.8	7.8
6	7.2	7.2	7.2	7.4	7.4	7.4	---	---	---	7.9	7.8	7.8
7	7.2	7.1	7.2	7.5	7.4	7.4	7.9	7.7	7.7	7.8	7.8	7.8
8	7.2	7.1	7.1	7.6	7.4	7.5	7.9	7.4	7.5	7.8	7.7	7.8
9	7.2	7.1	7.1	7.6	7.5	7.6	7.5	7.4	7.4	7.8	7.8	7.8
10	7.2	6.8	7.0	7.6	7.5	7.5	7.5	7.4	7.5	7.8	7.7	7.8
11	6.9	6.8	6.8	7.6	7.5	7.5	7.5	7.5	7.5	8.0	7.7	7.8
12	7.2	6.9	7.0	7.6	7.5	7.5	7.5	7.5	7.5	8.0	7.8	7.8
13	7.2	7.2	7.2	7.6	7.5	7.5	7.7	7.4	7.6	7.8	7.7	7.8
14	7.2	7.2	7.2	7.6	7.5	7.6	7.7	7.7	7.7	7.7	7.7	7.7
15	7.2	7.2	7.2	7.6	7.5	7.6	7.7	7.7	7.7	7.7	7.7	7.7
16	7.2	7.2	7.2	7.6	7.6	7.6	7.7	7.6	7.6	7.7	7.7	7.7
17	7.2	7.1	7.1	7.6	7.6	7.6	7.6	7.6	7.6	7.7	7.7	7.7
18	7.2	7.1	7.1	7.6	7.5	7.6	7.7	7.6	7.7	7.8	7.7	7.7
19	7.2	7.1	7.2	7.6	7.6	7.6	7.7	7.7	7.7	7.8	7.7	7.7
20	7.5	7.1	7.2	7.6	7.6	7.6	7.7	7.6	7.7	7.8	7.7	7.8
21	7.6	7.3	7.4	7.6	7.6	7.6	7.8	7.6	7.7	7.8	7.7	7.8
22	7.3	7.2	7.3	7.7	7.6	7.6	7.8	7.7	7.8	7.8	7.8	7.8
23	7.3	7.2	7.3	7.7	7.6	7.7	7.8	7.7	7.8	7.8	7.8	7.8
24	7.4	7.3	7.4	7.7	7.6	7.7	7.8	7.7	7.8	7.8	7.8	7.8
25	7.4	7.4	7.4	7.7	7.6	7.7	7.8	7.8	7.8	7.8	7.7	7.8
26	7.5	7.3	7.4	7.7	7.6	7.7	7.8	7.8	7.8	7.8	7.7	7.7
27	7.5	7.4	7.4	7.7	7.6	7.7	7.8	7.8	7.8	7.7	7.7	7.7
28	7.5	7.4	7.4	7.6	7.6	7.6	7.8	7.8	7.8	7.8	7.7	7.7
29	7.5	7.4	7.4	7.7	7.6	7.6	7.8	7.7	7.8	7.8	7.7	7.8
30	7.5	7.4	7.4	7.8	7.7	7.8	7.9	7.8	7.8	7.8	7.8	7.8
31	7.5	7.4	7.4	---	---	---	7.9	7.8	7.8	7.8	7.8	7.8
MONTH	7.6	6.8	7.2	7.8	7.3	7.6	7.9	7.4	7.7	8.0	7.7	7.8

01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA--Continued

PH (UNITS), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	7.9	7.8	7.8	7.5	7.4	7.4	7.5	7.4	7.4	7.6	7.4	7.4
2	7.9	7.8	7.8	7.5	7.3	7.4	7.4	7.3	7.4	7.5	7.4	7.4
3	7.9	7.8	7.8	7.4	7.4	7.4	7.4	7.3	7.3	---	---	---
4	7.8	7.8	7.8	7.4	7.4	7.4	7.3	7.2	7.3	---	---	---
5	7.8	7.7	7.8	7.5	7.2	7.3	7.3	7.1	7.2	---	---	---
6	7.9	7.7	7.8	7.2	7.1	7.1	7.4	7.2	7.3	---	---	---
7	7.9	7.8	7.9	7.2	7.1	7.2	7.4	7.3	7.4	---	---	---
8	7.9	7.2	7.8	7.2	7.2	7.2	7.5	7.4	7.4	---	---	---
9	7.9	7.8	7.8	---	---	---	7.5	7.4	7.4	7.5	7.4	7.4
10	7.8	7.7	7.8	---	---	---	7.5	7.4	7.5	7.6	7.4	7.5
11	7.7	7.7	7.7	---	---	---	7.5	7.5	7.5	7.6	7.4	7.5
12	7.7	7.7	7.7	---	---	---	7.6	7.5	7.5	7.6	7.4	7.5
13	7.7	7.6	7.7	---	---	---	7.5	7.5	7.5	7.5	7.4	7.5
14	7.7	7.5	7.6	---	---	---	---	---	---	7.6	7.4	7.5
15	7.5	7.4	7.5	---	---	---	---	---	---	7.8	7.4	7.6
16	7.6	7.5	7.5	7.3	7.2	7.3	---	---	---	8.0	7.4	7.6
17	7.6	7.5	7.6	7.4	7.3	7.4	---	---	---	7.9	7.5	7.7
18	7.6	7.6	7.6	7.5	7.3	7.4	---	---	---	8.3	7.4	7.8
19	7.6	7.6	7.6	7.5	7.4	7.5	---	---	---	8.2	7.5	7.8
20	7.6	7.5	7.6	7.5	7.5	7.5	---	---	---	8.1	7.5	7.8
21	7.7	7.5	7.6	7.6	7.5	7.5	8.0	7.9	7.9	8.5	7.5	8.0
22	7.7	7.6	7.7	7.7	7.3	7.5	8.2	7.7	7.9	8.6	7.6	8.1
23	7.7	7.6	7.7	7.3	7.2	7.3	8.4	7.6	8.0	8.5	7.7	8.1
24	7.7	7.3	7.6	7.3	7.0	7.2	8.1	7.7	7.9	8.7	7.7	8.1
25	8.0	7.2	7.4	7.2	6.9	7.1	7.9	7.6	7.8	8.4	7.8	8.0
26	7.4	7.3	7.4	7.3	6.9	7.0	7.8	7.4	7.6	8.5	7.5	8.0
27	7.4	7.3	7.4	7.4	7.0	7.2	7.5	7.4	7.4	8.6	7.5	8.1
28	7.5	7.4	7.4	7.4	7.3	7.4	7.5	7.3	7.4	8.8	7.5	8.2
29	---	---	---	7.5	7.3	7.4	7.5	7.4	7.5	8.9	8.0	8.5
30	---	---	---	7.5	7.4	7.4	7.5	7.3	7.4	8.4	7.8	8.0
31	---	---	---	7.5	7.4	7.4	---	---	---	8.1	7.8	7.9
MONTH	8.0	7.2	7.7	7.7	6.9	7.3	8.4	7.1	7.5	8.9	7.4	7.8

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	8.0	7.7	7.8	9.1	8.7	9.0	---	---	---	7.9	7.2	7.5
2	7.9	7.6	7.7	9.1	8.4	8.9	8.4	7.8	8.2	7.9	7.3	7.5
3	8.2	7.8	8.0	9.1	8.7	8.9	8.1	7.3	7.5	7.6	7.4	7.5
4	8.4	7.9	8.1	9.1	7.7	8.5	8.1	7.1	7.5	7.8	7.3	7.5
5	8.3	8.2	8.2	8.8	8.4	8.6	8.5	7.6	8.0	7.8	7.5	7.6
6	9.1	8.3	8.7	9.2	8.6	8.9	8.3	7.4	7.6	8.4	7.7	7.9
7	9.2	8.8	9.0	8.9	7.8	8.2	7.4	7.1	7.2	7.8	7.3	7.5
8	9.2	9.0	9.1	7.8	7.4	7.5	8.1	7.2	7.5	8.0	7.2	7.5
9	9.2	8.8	9.1	7.5	7.2	7.4	7.8	7.2	7.5	7.9	7.3	7.5
10	9.0	8.0	8.6	7.3	7.2	7.2	7.5	7.1	7.2	7.8	7.3	7.4
11	9.0	8.5	8.7	7.5	7.1	7.3	7.9	7.1	7.4	8.1	7.4	7.8
12	9.3	8.7	9.0	7.5	7.1	7.2	7.8	7.1	7.5	7.9	7.4	7.6
13	9.2	8.9	9.0	7.1	7.0	7.1	7.4	7.2	7.3	7.9	7.6	7.8
14	9.0	8.7	8.9	7.1	7.0	7.1	7.2	7.0	7.1	7.8	7.6	7.7
15	9.1	8.0	8.5	8.0	7.1	7.6	7.0	6.9	7.0	7.8	7.5	7.7
16	9.4	8.6	9.1	7.7	7.2	7.3	7.4	6.9	7.1	7.6	7.4	7.5
17	9.3	8.9	9.2	7.3	7.1	7.2	7.2	7.0	7.1	7.7	7.4	7.5
18	9.3	9.1	9.2	8.3	7.0	7.4	7.2	7.0	7.0	7.7	7.4	7.5
19	9.3	9.0	9.1	9.0	7.7	8.3	7.4	7.0	7.2	7.6	7.3	7.5
20	9.1	8.7	8.9	9.0	8.6	8.9	7.5	7.1	7.3	7.3	7.0	7.2
21	9.0	8.5	8.7	9.1	8.2	8.8	8.2	7.2	7.7	7.4	7.3	7.3
22	9.2	8.2	8.7	8.8	8.3	8.6	8.2	7.3	7.6	7.3	7.2	7.2
23	9.3	8.9	9.1	8.4	7.7	8.1	8.0	7.3	7.6	7.3	7.2	7.2
24	9.2	9.0	9.1	9.0	7.3	8.0	7.6	7.2	7.3	7.2	7.1	7.2
25	9.0	8.5	8.8	8.9	8.6	8.7	7.5	7.0	7.2	7.2	7.2	7.2
26	9.1	8.4	8.8	9.0	8.0	8.6	7.9	7.2	7.5	7.4	7.2	7.3
27	9.1	8.4	8.8	9.3	8.6	9.0	8.0	7.4	7.6	7.4	7.3	7.3
28	8.9	8.2	8.6	9.2	8.4	8.8	8.2	7.3	7.7	7.3	7.3	7.3
29	---	---	---	9.1	8.4	8.8	8.7	7.7	8.2	7.4	7.2	7.3
30	9.2	9.0	9.1	9.0	8.2	8.7	8.7	7.9	8.3	7.2	6.9	7.1
31	---	---	---	8.7	7.9	8.3	8.4	7.5	7.9	---	---	---
MONTH	9.4	7.6	8.7	9.3	7.0	8.2	8.7	6.9	7.5	8.4	6.9	7.5

01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	19.0	18.0	18.5	9.5	9.0	9.5	---	---	---	2.0	1.5	2.0
2	18.0	17.5	18.0	9.5	8.5	9.0	---	---	---	2.0	1.5	1.5
3	18.0	17.5	17.5	9.0	9.0	9.0	---	---	---	2.0	1.5	1.5
4	18.0	16.5	17.0	9.5	9.0	9.5	---	---	---	2.0	1.5	1.5
5	17.0	16.5	17.0	9.5	9.0	9.5	---	---	---	2.0	1.5	1.5
6	18.0	17.0	17.5	9.5	8.5	9.0	---	---	---	2.0	1.5	2.0
7	19.0	17.0	18.0	9.5	8.5	9.0	5.5	4.5	4.5	2.0	2.0	2.0
8	19.5	18.0	19.0	8.5	7.0	8.0	5.0	2.0	3.0	2.0	1.5	2.0
9	20.0	19.5	19.5	7.5	6.5	7.0	3.0	1.5	2.0	2.0	1.5	1.5
10	20.0	16.0	18.0	8.0	6.5	7.0	3.0	1.5	2.0	2.0	1.5	1.5
11	16.0	14.5	15.5	7.5	7.0	7.5	3.5	2.5	3.0	2.0	1.5	1.5
12	14.5	14.0	14.5	7.5	7.0	7.5	4.5	3.5	4.0	1.5	1.5	1.5
13	14.5	13.5	14.0	7.5	6.5	7.0	4.5	3.5	4.5	1.5	1.5	1.5
14	15.0	14.0	14.5	7.5	6.5	7.0	3.5	2.5	3.0	1.5	1.5	1.5
15	15.0	14.0	14.0	7.0	6.0	6.5	3.5	2.5	3.0	1.5	1.5	1.5
16	15.5	14.5	14.5	6.5	5.5	6.0	4.0	3.5	3.5	1.5	1.5	1.5
17	14.5	14.5	14.5	6.5	5.5	6.0	4.0	3.5	4.0	1.5	1.5	1.5
18	14.5	13.5	14.0	7.5	6.0	6.5	4.5	3.5	4.0	1.5	1.5	1.5
19	13.5	12.0	13.0	7.5	6.5	7.0	4.0	3.0	3.5	1.5	1.0	1.5
20	13.5	12.5	13.0	7.0	6.5	6.5	4.5	3.5	4.0	1.0	1.0	1.0
21	13.5	12.0	13.0	7.0	6.0	6.5	4.5	4.0	4.5	1.5	1.0	1.0
22	12.0	11.0	11.5	6.5	6.0	6.5	4.0	3.0	3.5	1.5	1.0	1.5
23	11.5	11.0	11.0	6.0	5.0	5.5	3.5	2.5	3.0	1.5	1.0	1.5
24	11.0	10.5	10.5	5.5	5.0	5.0	3.0	3.0	3.0	1.5	1.0	1.5
25	11.0	10.5	10.5	5.0	4.5	5.0	2.5	2.0	2.5	1.5	1.5	1.5
26	11.5	11.0	11.0	5.5	4.5	5.0	3.0	2.0	2.5	1.5	1.5	1.5
27	11.0	10.0	10.5	6.5	5.5	6.0	2.5	2.0	2.5	2.0	1.5	2.0
28	10.0	9.0	9.5	6.5	6.0	6.5	2.5	2.0	2.5	2.5	2.0	2.5
29	9.5	8.5	9.0	7.0	6.5	7.0	3.0	2.0	2.5	2.5	2.0	2.0
30	9.0	8.5	9.0	---	---	---	2.0	2.0	2.0	2.0	1.5	1.5
31	9.5	9.0	9.5	---	---	---	2.5	2.0	2.0	1.5	1.5	1.5
MONTH	20.0	8.5	14.0	9.5	4.5	7.0	5.5	1.5	3.0	2.5	1.0	1.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	1.5	1.5	1.5	6.0	5.0	5.5	16.0	15.0	15.0	18.0	15.5	16.5
2	1.5	1.5	1.5	7.0	5.0	5.5	15.0	14.0	14.5	18.0	16.5	17.0
3	1.5	1.5	1.5	7.0	5.5	6.5	14.0	13.0	14.0	---	---	---
4	2.0	1.5	1.5	8.0	6.5	7.0	13.0	12.5	13.0	---	---	---
5	2.5	2.0	2.0	8.0	7.5	7.5	12.5	9.5	11.0	---	---	---
6	2.0	2.0	2.0	7.5	7.0	7.0	10.0	9.5	9.5	---	---	---
7	2.0	1.5	1.5	8.0	7.0	7.5	10.0	9.5	9.5	---	---	---
8	1.5	1.5	1.5	8.5	7.5	7.5	10.5	9.5	10.0	---	---	---
9	1.5	1.5	1.5	---	---	---	11.0	9.5	10.0	18.5	16.5	17.5
10	2.0	1.5	1.5	---	---	---	11.0	10.0	10.5	16.5	15.5	16.0
11	3.5	2.0	2.5	---	---	---	12.5	10.5	11.5	17.5	15.0	16.0
12	4.0	3.0	3.5	---	---	---	15.5	12.0	14.0	18.5	15.5	17.0
13	4.5	4.0	4.5	---	---	---	17.0	15.0	16.0	19.5	17.5	18.5
14	4.0	3.5	4.0	---	---	---	---	---	---	20.5	18.5	19.5
15	4.0	3.5	4.0	---	---	---	---	---	---	21.5	19.0	20.5
16	4.0	3.5	3.5	12.5	11.5	12.0	---	---	---	22.5	20.0	21.0
17	3.5	3.0	3.0	12.5	11.5	12.0	---	---	---	23.5	21.0	22.0
18	3.5	2.5	3.0	11.5	10.5	11.0	---	---	---	24.0	23.0	23.5
19	3.5	3.0	3.0	10.5	9.0	10.0	---	---	---	24.5	24.0	24.5
20	3.5	3.0	3.5	9.0	8.5	9.0	---	---	---	26.0	24.0	25.0
21	3.5	3.0	3.5	9.5	8.0	8.5	19.5	18.5	19.0	26.5	25.0	26.0
22	3.5	3.0	3.0	9.5	8.5	9.0	20.5	18.5	19.5	27.5	25.5	26.5
23	4.5	3.0	4.0	7.5	7.5	7.5	22.0	19.5	20.5	28.0	26.5	27.0
24	5.5	4.0	4.5	---	---	---	21.0	19.5	20.0	27.5	26.5	27.0
25	5.5	3.5	4.0	---	---	---	19.5	18.5	19.5	28.0	26.5	27.0
26	4.5	4.0	4.0	---	---	---	18.5	17.0	17.5	28.5	26.0	27.0
27	5.5	4.0	4.5	---	---	---	16.5	15.5	16.0	28.0	26.0	27.0
28	6.0	5.5	5.5	---	---	---	16.0	15.0	15.5	28.0	26.0	27.0
29	---	---	---	12.5	11.5	12.0	16.5	15.0	15.5	27.5	25.5	27.0
30	---	---	---	15.0	12.0	13.5	17.0	15.0	16.0	25.5	24.5	25.0
31	---	---	---	16.0	14.5	15.0	---	---	---	25.0	24.0	24.5
MONTH	6.0	1.5	3.0	16.0	5.0	9.0	22.0	9.5	14.5	28.5	15.0	22.5

01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	24.0	23.5	23.5	28.5	27.5	28.0	27.0	26.0	26.5	28.5	27.5	28.0
2	24.5	22.5	23.5	28.5	27.0	28.0	28.0	25.0	26.5	29.0	28.0	28.5
3	24.5	23.0	24.0	28.5	27.0	27.5	27.5	27.0	27.0	29.5	28.5	29.0
4	24.5	22.5	23.5	28.0	26.5	27.5	28.5	26.0	27.5	29.0	28.0	28.5
5	24.5	23.5	24.0	28.5	27.5	28.0	29.0	27.5	28.5	28.5	27.5	28.0
6	24.0	22.0	23.0	29.5	28.0	29.0	29.5	28.0	29.0	29.0	27.5	28.0
7	22.0	21.5	22.0	29.0	28.0	28.0	30.0	29.0	29.5	28.0	26.5	27.0
8	22.0	21.0	21.5	29.0	27.5	28.0	31.0	29.5	30.0	27.0	25.5	26.5
9	21.5	20.0	21.0	29.0	28.5	29.0	30.5	29.5	30.0	26.5	25.5	26.0
10	21.0	19.5	20.0	30.0	28.0	29.0	30.0	29.0	29.5	26.0	25.0	25.5
11	20.5	19.5	20.0	28.5	28.0	28.5	30.5	29.0	29.5	26.0	25.0	25.5
12	22.0	20.0	21.0	28.5	27.5	28.0	30.0	29.5	30.0	25.0	24.0	24.0
13	23.0	21.5	22.0	29.0	27.0	28.0	29.5	28.5	29.0	24.0	23.5	24.0
14	24.0	22.0	23.0	30.5	28.0	29.0	28.5	28.0	28.5	23.5	23.0	23.5
15	24.0	23.0	23.5	29.5	28.0	28.5	28.5	27.5	28.0	23.5	22.5	23.0
16	26.0	23.5	24.5	30.0	28.5	29.5	28.0	27.5	28.0	22.5	22.0	22.5
17	25.0	24.0	24.5	31.0	30.0	30.5	27.5	27.0	27.5	23.0	22.0	22.5
18	27.0	24.5	25.5	32.0	30.0	31.0	27.0	26.5	27.0	24.0	23.0	23.5
19	28.0	26.5	27.0	32.5	30.5	31.5	27.0	25.5	26.0	25.0	23.5	24.0
20	28.0	27.0	27.5	32.0	31.0	31.5	26.5	25.5	26.0	24.5	23.5	24.0
21	28.0	27.0	27.0	32.5	31.0	31.5	26.0	25.0	25.5	24.5	23.5	24.0
22	28.0	26.0	27.0	31.5	30.0	31.0	25.5	24.5	25.0	24.0	23.0	23.5
23	27.5	26.0	26.5	30.0	28.5	29.0	25.5	24.5	25.0	23.0	22.5	23.0
24	27.5	25.5	26.5	29.5	28.0	29.0	25.0	24.5	25.0	22.5	21.0	22.0
25	26.5	25.5	26.0	29.0	27.5	28.0	25.0	24.0	24.5	21.5	20.0	20.5
26	27.0	25.0	26.0	28.5	27.0	27.5	25.5	23.5	24.5	21.0	20.0	20.5
27	28.0	25.5	27.0	28.0	26.0	27.0	26.0	24.0	25.0	21.0	20.0	20.5
28	28.0	27.0	27.5	28.0	26.0	27.0	27.0	25.0	26.0	21.0	20.0	20.5
29	28.0	26.0	27.0	27.5	25.5	26.5	28.0	26.5	27.0	21.0	20.0	20.5
30	28.5	27.0	28.0	27.0	26.0	26.5	28.5	27.0	27.5	22.0	20.0	20.5
31	---	---	---	27.5	26.0	27.0	29.0	27.5	28.0	---	---	---
MONTH	28.5	19.5	24.5	32.5	25.5	28.5	31.0	23.5	27.5	29.5	20.0	24.0

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.3	6.5	6.7	10.7	10.3	10.5	---	---	---	12.7	12.2	12.5
2	6.8	6.1	6.5	10.6	10.3	10.5	---	---	---	13.0	12.4	12.7
3	7.7	7.0	7.4	10.4	10.1	10.3	---	---	---	13.0	12.6	12.8
4	8.6	8.0	8.3	10.4	10.0	10.2	---	---	---	12.9	12.5	12.7
5	8.9	8.6	8.7	10.6	9.7	10.2	---	---	---	12.8	12.4	12.7
6	8.8	8.4	8.6	10.4	9.8	10.0	---	---	---	12.7	12.3	12.5
7	8.7	8.3	8.5	10.7	9.9	10.4	10.8	10.3	10.6	12.3	11.9	12.0
8	8.7	8.2	8.6	11.0	10.6	10.8	11.7	10.5	11.1	12.2	11.7	11.9
9	8.6	7.8	8.2	10.7	10.2	10.5	12.3	11.5	12.0	12.3	11.8	12.1
10	8.5	8.1	8.3	10.5	10.0	10.3	12.7	12.0	12.4	12.2	11.5	11.8
11	9.2	8.9	9.0	10.2	9.9	10.0	12.7	12.2	12.4	12.2	11.5	11.9
12	10.3	9.5	9.9	10.0	9.6	9.8	12.6	11.7	12.0	13.0	11.7	12.3
13	9.7	8.9	9.3	9.7	9.2	9.5	12.2	11.9	12.0	12.8	12.3	12.6
14	9.0	8.2	8.7	9.6	9.3	9.4	12.4	11.9	12.2	12.4	12.0	12.2
15	9.1	8.7	8.9	11.1	9.4	10.2	12.5	12.1	12.3	12.0	11.5	11.9
16	9.3	8.1	9.0	10.9	10.6	10.8	12.2	11.9	12.1	11.9	11.4	11.7
17	8.7	8.4	8.5	10.6	10.2	10.5	12.3	12.0	12.1	12.0	11.7	11.8
18	9.6	9.1	9.4	10.4	9.8	10.0	12.6	12.2	12.4	12.3	11.9	12.1
19	11.0	9.6	10.2	10.1	9.5	9.9	13.1	12.7	12.9	12.7	12.0	12.4
20	10.2	8.7	9.4	9.9	9.3	9.6	13.2	12.6	13.0	12.2	11.7	11.9
21	9.5	9.2	9.4	9.9	9.5	9.6	12.9	12.0	12.6	12.0	11.2	11.6
22	10.1	9.5	9.8	10.9	9.4	10.1	13.0	12.6	12.9	12.0	11.5	11.7
23	10.5	10.1	10.2	10.7	10.2	10.4	13.3	12.9	13.1	12.1	11.5	11.8
24	10.7	10.2	10.4	10.9	10.4	10.6	13.3	12.9	13.1	12.3	11.6	11.9
25	10.6	10.1	10.4	11.4	11.0	11.2	13.1	12.8	12.9	12.2	11.7	11.9
26	10.6	9.8	10.1	11.7	11.4	11.6	13.0	12.7	12.8	12.2	11.4	11.8
27	10.0	9.5	9.7	11.9	11.6	11.8	13.1	12.3	12.6	11.9	11.4	11.6
28	10.2	9.9	10.1	12.0	11.6	11.8	12.8	12.0	12.4	12.7	11.5	12.0
29	10.6	9.9	10.1	12.0	11.0	11.6	12.4	11.9	12.2	13.0	12.5	12.8
30	10.4	10.1	10.3	11.6	11.2	11.3	12.4	12.2	12.3	13.3	12.3	12.9
31	10.6	10.2	10.4	---	---	---	12.6	12.2	12.4	13.5	12.8	13.1
MONTH	11.0	6.1	9.1	12.0	9.2	10.4	13.3	10.3	12.4	13.5	11.2	12.2

01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA--Continued

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	13.6	12.9	13.2	11.6	11.4	1 .5	---	---	---	8.4	7.9	8.1
2	13.3	12.3	12.9	12.1	11.5	1 .8	---	---	---	8.0	7.4	7.6
3	12.5	11.8	12.2	12.1	11.8	12.0	---	---	---	---	---	---
4	12.0	11.5	11.8	11.8	11.2	11.6	---	---	---	---	---	---
5	11.7	11.2	11.4	11.6	11.2	11.4	---	---	---	---	---	---
6	11.7	11.0	11.3	11.9	11.2	11.5	11.2	10.8	11.0	---	---	---
7	12.1	11.1	11.5	11.4	10.9	11.2	11.0	10.8	10.9	---	---	---
8	13.1	11.5	12.2	11.0	10.9	10.9	11.0	10.7	10.9	---	---	---
9	13.2	12.8	13.0	---	---	---	11.1	10.8	10.9	8.5	7.8	8.3
10	13.2	12.3	12.9	---	---	---	11.0	10.8	10.9	9.2	8.4	8.7
11	12.7	11.9	12.2	---	---	---	---	---	---	9.0	8.5	8.7
12	12.2	11.7	12.0	---	---	---	---	---	---	8.8	8.3	8.6
13	12.2	11.5	11.8	---	---	---	---	---	---	8.3	7.9	8.1
14	12.3	11.8	12.0	---	---	---	---	---	---	8.5	7.5	8.0
15	12.3	11.9	12.1	---	---	---	---	---	---	9.2	7.3	8.2
16	12.2	11.9	12.0	10.7	10.5	10.5	---	---	---	9.4	7.2	8.2
17	12.6	11.9	12.3	10.6	10.4	10.5	---	---	---	9.3	7.3	8.3
18	12.5	12.3	12.4	10.5	10.2	10.4	---	---	---	10.2	6.8	8.4
19	12.4	12.2	12.3	11.2	10.4	10.8	---	---	---	9.2	6.2	7.8
20	12.2	11.7	11.9	11.2	11.1	11.1	---	---	---	9.4	6.6	8.0
21	12.2	11.7	11.9	11.5	11.1	11.3	9.7	9.0	9.4	10.7	6.7	8.8
22	12.2	12.1	12.1	11.3	10.3	10.7	9.4	8.1	8.8	11.7	7.1	9.3
23	12.3	11.7	12.1	---	---	---	9.4	7.7	8.6	11.0	7.6	9.3
24	11.5	11.1	11.6	---	---	---	8.3	7.3	7.8	9.3	7.0	8.0
25	12.5	11.2	12.1	---	---	---	8.6	7.3	8.0	---	---	---
26	12.5	12.0	12.3	---	---	---	8.8	8.1	8.4	---	---	---
27	12.5	11.7	12.2	---	---	---	8.9	8.1	8.6	---	---	---
28	11.7	11.4	11.5	---	---	---	8.9	8.6	8.7	---	---	---
29	---	---	---	---	---	---	8.8	8.2	8.5	---	---	---
30	---	---	---	---	---	---	8.5	7.5	8.0	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	13.6	11.0	12.1	12.1	10.2	11.1	11.2	7.3	9.3	11.7	6.2	8.4

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---							---	---	---
2	---	---	---							---	---	---
3	---	---	---							---	---	---
4	---	---	---							---	---	---
5	---	---	---							---	---	---
6	---	---	---							10.9	7.3	9.0
7	---	---	---							8.2	5.4	6.7
8	---	---	---							9.0	4.8	6.8
9	11.3	9.5	10.6							9.2	4.8	6.9
10	10.9	7.2	9.2							9.1	5.7	6.8
11	12.9	7.7	10.4							11.0	7.2	9.1
12	15.0	9.3	12.4							9.7	6.8	8.5
13	14.0	11.3	12.4							9.7	8.0	8.8
14	---	---	---							8.2	7.0	7.6
15	---	---	---							8.3	6.9	7.6
16	---	---	---							7.3	5.3	6.4
17	---	---	---							7.9	6.3	7.0
18	---	---	---							7.4	5.9	6.6
19	---	---	---							---	---	---
20	---	---	---							6.0	5.1	5.7
21	---	---	---							6.4	5.1	5.7
22	---	---	---							5.3	4.4	4.8
23	---	---	---							5.8	4.0	4.8
24	---	---	---							6.1	4.6	5.3
25	---	---	---							6.8	5.7	6.3
26	---	---	---							7.4	6.4	6.9
27	---	---	---							7.5	7.0	7.2
28	---	---	---							7.6	6.9	7.3
29	---	---	---							7.8	6.4	7.2
30	---	---	---							---	---	---
31	---	---	---							---	---	---
MONTH	15.0	7.2	11.0							11.0	4.0	6.9

RESERVOIRS IN SCHUYLKILL RIVER BASIN

01469200 STILL CREEK RESERVOIR.--Lat 40°51'25", long 75°59'30", Schuylkill County, Hydrologic Unit 02040203, at dam on Still Creek, 1 mi (1.6 km) upstream from mouth and 2.3 mi (3.7 km) north of Hometown, Pa. DRAINAGE AREA, 8.5 mi^2 (22.0 km^2) PERIOD OF RECORD, January 1933 to current year. NONRECORDING GAGE, Datum of gage is at mean sea level (levels by Panther Valley Water Co.).

Reservoir formed by earthfill dam, with ungated concrete spillway at elevation 1,182.00 ft (360.274 m). Storage began in February 1933. Capacity at elevation 1,182.00 ft (360.274 m) is 8,290 acre-ft (10.2 hm^3). Reservoir is used for municipal water supply. Figures given herein represent total contents. Regulation is accomplished by valves on pipe through dam. Records furnished by Panther Valley Water Co.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 8,570 acre-ft (10.6 hm^3) Oct. 15, 1955 (elevation, 1,182.92 ft or 360.554 m), but may have been greater during 1950 and 1951 water years; minimum (after first filling), 588 acre-ft (0.725 hm^3) Dec. 8, 1944 (elevation, 1,136.70 ft or 346.466 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 8,410 acre-ft (10.4 hm^3) Mar. 23 (elevation 1,182.42 ft or 360.402 m); minimum, 6,600 acre-ft (8.14 hm^3) Sept. 30, 1977 (elevation, 1,176.00 ft or 358.445 m).

01472200 GREEN LANE RESERVOIR.--Lat 40°20'30", long 75°28'45", Montgomery County, Hydrologic Unit 02040203, at dam on Perkiomen Creek at Green Lane, Pa., 0.4 mi (0.6 km) west of Green Lane and 2.1 mi (3.4 km) upstream from Unami Creek. DRAINAGE AREA, 70.9 mi^2 (183.6 km^2). PERIOD OF RECORD, December 1956 to current year. GAGE, water-stage recorder. Datum of gage is at mean sea level (levels by Philadelphia Suburban Water Co.).

Reservoir formed by concrete, gravity-type dam, with ungated spillway at elevation 286.00 ft (87.173 m). Storage began December 21, 1956. Capacity at spillway level (elevation 286.00 ft or 87.173 m), 13,430 acre-ft (16.6 hm^3). Reservoir is used for municipal water supply. Figures given herein represent total contents. Regulation is accomplished by valves on pipe through dam. Records furnished by Philadelphia Suburban Water Co.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 17,030 acre-ft (21.0 hm^3) June 23, 1972 (elevation, 290.05 ft or 88.407 m); minimum (after first filling), 1,270 acre-ft (1.57 hm^3) Aug. 25, 1957 (elevation, 251.60 ft or 76.688 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 14,300 acre-ft (17.6 hm^3) May 5 (elevation, 286.98 ft or 87.472 m); minimum, 12,180 acre-ft (15.0 hm^3) Oct. 1 (elevation, 284.55 ft or 86.731 m).

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in cfs)	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in cfs)
	01469200 Still Creek Reservoir			01472200 Green Lane Reservoir		
Sept. 30	1,181.42	8,120	--	284.54	12,170	--
Oct. 31	1,182.15	8,330	+ 3.4	286.16	13,570	+22.8
Nov. 30	1,181.88	8,250	- 1.3	285.77	13,230	- 5.7
Dec. 31	1,182.00	8,290	+ .6	285.87	13,320	+ 1.5
CAL YR 1976	--	--	- .03	--	--	- 0.8
Jan. 31	1,182.00	8,290	0	285.70	13,170	- 2.4
Feb. 28	1,181.00	7,990	- 5.4	286.09	13,510	+ 6.1
Mar. 31	1,182.17	8,340	+ 5.7	286.01	13,440	- 1.1
Apr. 30	1,182.17	8,340	0	286.03	13,460	+ 0.3
May 31	1,181.83	8,240	- 1.6	285.70	13,170	- 4.7
June 30	1,181.00	7,990	- 4.2	285.83	13,280	+ 1.8
July 31	1,179.83	7,660	- 5.4	285.37	12,870	- 6.7
Aug. 31	1,177.50	7,010	-10.6	285.70	13,170	+ 4.9
Sept. 30	1,176.00	6,600	- 6.9	285.15	12,680	- 8.2
WTR YR 1977	--	--	- 2.1	--	--	+ 0.7

01475300 DARBY CREEK AT WATERLOO MILLS NEAR DEVON, PA

LOCATION.--Lat 40°01'21", long 75°25'20", Chester County, Hydrologic Unit 02040202, on left bank 125 ft (38 m) upstream from bridge on Waterloo Road, 2 mi (3.2 km) south of Devon, and 2.5 mi (4.0 km) northwest of Newtown Square.

DRAINAGE AREA.--5.15 mi² (13.3 km²).

PERIOD OF RECORD.--May 1972 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 310 ft (94 m), from topographic map.

REMARKS.--Records good except those for the period January 12 to February 6, which are fair.

AVERAGE DISCHARGE.--5 years, 9.61 ft³/s (0.272 m³/s), 25.35 in/yr (644 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 985 ft³/s (27.9 m³/s) June 22, 1972, gage height, 5.49 ft (1.673 m); minimum, 0.86 ft³/s (0.024 m³/s) Nov. 11, 1977; minimum gage height, 1.36 ft (0.415 m) Nov. 9, 1974.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 200 ft³/s (5.66 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 24	1930	408	11.6	4.16	1.268	Apr. 5	0430	248	7.02	3.55	1.082
Mar. 13	2115	278	7.87	3.67	1.119	Sept. 19	2315	350	9.91	3.96	1.207
Mar. 22	1500	*417	11.8	*4.19	1.277						

Minimum discharge, 0.86 ft³/s (0.024 m³/s) Nov. 11; minimum gage height, 1.38 ft (0.421 m) Oct. 13, Nov. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.2	5.4	3.0	3.2	3.2	6.7	8.2	8.3	9.8	4.4	5.1	5.9
2	4.3	4.4	3.0	3.2	3.1	6.1	20	8.6	13	3.9	4.6	2.8
3	30	4.2	2.8	3.2	3.0	5.8	13	7.9	4.9	3.5	3.7	2.3
4	6.4	4.2	2.8	3.4	3.0	14	16	8.3	4.3	3.5	2.6	2.4
5	4.3	3.9	2.8	3.3	3.2	11	67	11	4.3	3.5	2.1	2.6
6	4.3	3.9	2.8	3.1	3.1	7.5	16	8.7	6.8	5.9	3.9	8.1
7	4.0	3.7	32	3.5	3.0	6.8	14	7.8	5.7	5.7	2.6	4.6
8	4.0	3.7	7.5	3.3	2.9	6.3	12	7.5	4.4	3.9	2.1	3.0
9	15	3.7	4.9	3.3	3.0	6.0	12	7.9	26	3.5	2.1	2.8
10	5.6	3.7	4.7	16	4.0	5.8	11	7.3	12	3.3	4.6	2.8
11	4.4	3.1	4.6	8.2	8.8	5.7	11	7.0	6.0	3.1	3.0	2.4
12	4.0	3.5	4.8	6.0	9.9	5.6	10	6.8	5.0	5.4	2.1	2.4
13	3.2	3.5	4.3	4.5	12	51	9.8	6.6	4.7	3.9	3.1	2.4
14	3.4	3.5	3.8	3.8	7.8	24	9.5	6.3	6.4	3.1	9.5	2.4
15	3.7	3.5	3.9	4.0	6.4	11	9.2	6.1	7.9	3.0	3.1	2.3
16	5.6	3.7	4.1	4.1	5.2	9.4	9.0	6.3	4.9	2.8	2.4	2.4
17	3.6	3.3	4.1	4.0	4.3	8.5	8.8	5.9	4.5	2.6	4.4	3.9
18	3.7	3.3	3.8	3.9	3.8	15	8.6	6.3	4.6	2.6	2.8	2.6
19	3.7	3.3	3.7	3.8	4.0	9.7	8.5	6.3	4.0	2.6	2.1	27
20	20	3.1	5.0	3.6	5.2	9.5	8.1	5.7	5.0	2.6	2.0	23
21	11	3.1	6.4	3.5	4.7	8.7	8.0	5.3	4.2	2.6	1.9	3.8
22	5.3	3.1	4.2	3.4	4.3	78	7.9	5.1	3.7	2.1	10	4.6
23	4.6	3.0	4.0	3.2	5.4	17	7.7	5.0	3.5	2.1	2.6	4.0
24	5.1	3.0	3.8	3.3	72	13	9.6	5.0	3.6	2.3	4.2	4.2
25	6.0	3.1	3.7	3.8	24	11	10	4.9	3.5	4.9	3.1	32
26	10	3.1	4.4	3.4	9.1	10	37	4.6	3.5	3.3	2.3	7.2
27	5.3	3.1	3.9	3.3	8.1	9.9	14	4.4	3.2	2.4	2.1	7.2
28	4.9	3.1	3.8	3.4	8.2	9.9	11	4.1	21	2.3	2.0	6.9
29	4.7	5.9	3.7	3.3	---	9.5	12	4.0	17	2.3	2.0	4.0
30	4.6	3.5	3.3	3.2	---	9.1	8.9	4.0	4.9	2.3	1.9	3.6
31	18	---	3.2	3.3	---	8.7	---	4.2	---	2.3	12	---
TOTAL	219.9	108.6	152.8	128.5	234.7	410.2	407.8	197.2	212.3	101.7	112.0	185.6
MEAN	7.09	3.62	4.93	4.15	8.38	13.2	13.6	6.36	7.08	3.28	3.61	6.19
MAX	30	5.9	32	16	72	78	67	11	26	5.9	12	32
MIN	3.2	3.0	2.8	3.1	2.9	5.6	7.7	4.0	3.2	2.1	1.9	2.3
CFSM	1.38	.70	.96	.81	1.63	2.56	2.64	1.24	1.38	.64	.70	1.20
IN.	1.59	.78	1.10	.93	1.69	2.96	2.95	1.42	1.53	.73	.81	1.34

CAL YR 1976 TOTAL 2682.2 MEAN 7.33 MAX 63 MIN 2.1 CFSM 1.42 IN 19.37
WTR YR 1977 TOTAL 2471.3 MEAN 6.77 MAX 78 MIN 1.9 CFSM 1.32 IN 17.85

01475510 DARBY CREEK NEAR DARBY, PA

LOCATION.--Lat 39°55'44", long 75°16'22", Delaware County, Hydrologic Unit 02040202, on right bank 30 ft (9 m) upstream from Providence Road Bridge, 1.1 mi (1.8 km) northwest of Upper Darby, 2.3 mi (3.7 km) upstream from Cobbs Creek, and 8.4 mi (13.5 km) upstream from mouth.

DRAINAGE AREA.--37.4 mi^2 (96.9 km^2).

PERIOD OF RECORD.--February 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is 19.41 ft (5.916 m) above mean sea level. Prior to May 9, 1964, nonrecording gage at same site and datum.

REMARKS.--Records good except those for December 31 through February 18, which are fair.

AVERAGE DISCHARGE.--13 years, 68.2 ft^3/s (1.931 m^3/s), 24.78 in/yr (629 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,920 ft^3/s (168 m^3/s) Aug. 23, 1974, gage height, 10.23 ft (3.118 m), from rating curve extended above 920 ft^3/s (26 m^3/s) on basis of step-backwater analysis; minimum, 8.8 ft^3/s (0.25 m^3/s) Sept. 2, 1966, gage height, 1.16 ft (0.354 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 800 ft^3/s (22.7 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Oct. 3	1130	934	26.5	4.01	1.222	June 28	2045	1,740	49.3	5.61	1.710
Feb. 24	1930	1,560	44.2	5.29	1.612	Aug. 31	1745	1,420	40.2	4.99	1.521
Mar. 22	1430	1,690	47.9	5.54	1.689	Sept. 6	1945	1,200	34.0	4.57	1.393
Apr. 5	0330	1,020	28.9	4.20	1.280	Sept.20	0045	*1,830	51.8	*5.76	1.756
June 1	2300	916	25.9	3.97	1.210	Sept.25	0800	862	24.4	3.85	1.173

Minimum discharge, 9.9 ft^3/s (0.28 m^3/s) Dec. 3, 30, gage height, 1.18 ft (0.360 m), result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	77	39	22	18	20	39	44	45	81	26	90	64
2	31	30	22	18	19	35	137	45	122	24	27	21
3	271	29	20	18	18	34	74	44	30	22	54	20
4	49	29	19	20	18	88	79	54	27	21	21	17
5	30	31	19	19	20	70	433	70	27	22	18	17
6	28	27	20	18	19	45	83	50	41	34	75	145
7	26	26	213	21	18	38	64	44	37	46	34	51
8	25	25	51	19	17	35	59	41	28	24	21	22
9	127	25	30	28	17	34	56	47	145	22	21	20
10	41	25	28	181	30	33	54	42	103	21	17	19
11	30	25	27	49	60	32	54	39	37	20	30	18
12	28	24	28	35	115	32	53	39	32	90	23	17
13	26	24	26	30	110	200	48	38	29	27	30	17
14	24	25	25	28	54	152	48	37	34	22	81	17
15	24	24	25	30	33	50	47	37	68	20	29	16
16	25	24	25	28	28	42	47	37	32	19	19	16
17	29	24	25	26	24	38	45	35	27	18	42	39
18	27	24	24	25	23	88	45	38	27	17	25	19
19	24	24	24	23	23	50	44	38	26	17	18	92
20	174	24	30	22	27	42	42	30	30	19	17	365
21	117	24	41	21	25	42	42	29	33	17	17	33
22	35	23	25	20	22	530	41	28	25	16	152	35
23	29	23	29	20	23	110	41	28	25	14	23	34
24	30	23	26	23	345	64	59	28	24	13	50	34
25	36	23	29	27	231	56	77	28	26	32	32	247
26	80	23	27	24	56	51	204	28	24	26	20	47
27	31	23	24	22	45	48	94	26	23	15	18	39
28	27	23	25	23	45	50	68	26	238	14	17	53
29	26	45	23	21	---	48	77	25	196	14	17	29
30	26	27	19	20	---	47	50	25	30	15	16	27
31	147	---	18	22	---	44	---	27	---	15	101	---
TOTAL	1700	785	989	899	1485	2267	2309	1148	1627	722	1164	1590
MEAN	54.8	26.2	31.9	29.0	53.0	73.1	77.0	37.0	54.2	23.3	37.5	53.0
MAX	271	45	213	181	345	530	433	70	238	90	152	365
MIN	24	23	18	18	17	32	41	25	23	13	16	15
CFSM	1.47	.70	.85	.78	1.42	1.96	2.06	.99	1.45	.62	1.00	1.42
IN.	1.69	.78	.98	.89	1.48	2.25	2.30	1.14	1.62	.72	1.16	1.58

CAL YR 1976 TOTAL 20310 MEAN 55.5 MAX 415 MIN 17 CFSM 1.48 IN 20.20
WTR YR 1977 TOTAL 16685 MEAN 45.7 MAX 530 MIN 13 CFSM 1.22 IN 16.60

01475530 COBBS CREEK AT U. S. HIGHWAY NO. 1 AT PHILADELPHIA, PA

LOCATION.--Lat 39°59'29", long 75°16'49", Philadelphia County, Hydrologic Unit 02040203, on left bank 30 ft (9 m) downstream from bridge on U. S. Highway No. 1 and 50 ft (15 m) upstream from unnamed tributary at west city limits of Philadelphia.

DRAINAGE AREA.--4.78 mi² (12.4 km²).

PERIOD OF RECORD.--October 1964 to current year. Prior to October 1973 published as "near Philadelphia".

GAGE.--Water-stage recorder, concrete control, and crest-stage gage. Datum of gage is 121.76 ft (37.112 m) above mean sea level.

REMARKS.--Records fair except those for January and February, which are poor.

AVERAGE DISCHARGE.--13 years, 7.01 ft³/s (0.199 m³/s), 19.91 in/yr (506 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,480 ft³/s (98.6 m³/s) Aug. 23, 1974, gage height, 10.48 ft (3.194 m), from rating curve extended above 160 ft³/s (4.5 m³/s) on basis of computation of flow through culvert at gage height 9.18 ft (2.798 m); minimum, 0.3 ft³/s (0.008 m³/s) Oct. 13, Nov. 24, 25, 1965; minimum gage height, 2.03 ft (0.619 m) Nov. 25, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 250 ft³/s (7.08 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Oct. 3	0900	328	9.29	5.11	1.558	Aug. 6	1800	254	7.19	4.75	1.448
Mar. 22	1430	325	9.20	5.10	1.554	Aug. 22	0430	260	7.36	4.78	1.457
June 28	2000	*663	18.8	*6.28	1.914	Sept.19	2300	489	13.8	5.73	1.747

Minimum discharge, 1.4 ft³/s (0.040 m³/s) Dec. 30; minimum gage height, 2.12 ft (0.646 m) July 23, 24, 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	4.4	3.0	1.8	2.1	4.1	3.9	4.9	11	3.9	16	6.1
2	11	4.1	3.0	1.7	2.2	3.6	21	5.2	8.5	3.6	2.5	3.0
3	65	3.9	2.8	1.7	2.3	3.4	6.1	4.7	3.4	3.4	12	2.5
4	5.2	3.9	2.8	1.9	2.2	18	15	8.5	3.0	3.2	2.5	2.3
5	3.9	5.5	2.8	1.6	3.5	7.5	48	10	3.0	3.2	2.2	2.2
6	3.6	3.6	2.8	1.5	2.5	3.9	9.6	4.9	7.8	8.8	18	22
7	3.4	3.6	41	2.0	2.3	3.6	7.8	4.4	4.4	5.5	3.4	4.4
8	3.2	3.6	4.9	1.6	2.5	3.4	7.1	4.4	3.2	4.1	4.4	2.8
9	28	3.4	3.6	1.5	3.0	3.2	6.8	5.8	24	3.4	3.2	2.5
10	4.4	3.4	3.6	33	5.5	3.2	6.5	4.7	6.5	3.2	5.2	2.3
11	3.6	3.4	3.4	3.7	6.2	3.2	6.1	4.4	3.6	3.4	2.8	2.3
12	3.4	3.2	3.6	3.0	6.9	3.0	6.1	4.1	3.2	20	6.1	2.2
13	3.4	3.2	3.0	2.7	7.1	37	5.8	4.1	3.2	3.6	8.2	2.2
14	3.0	3.2	3.0	2.8	4.0	9.2	5.5	3.9	8.5	3.0	14	2.2
15	3.0	3.2	3.0	3.0	3.0	4.7	5.5	3.9	8.5	2.5	3.0	2.0
16	2.8	3.2	3.0	2.6	2.7	4.1	5.2	3.6	3.2	2.3	2.5	2.2
17	3.6	3.2	3.0	2.4	2.6	4.1	4.7	3.9	3.0	2.2	7.5	7.1
18	3.6	3.2	2.8	2.3	2.5	12	4.7	7.1	3.0	2.2	2.8	2.3
19	3.9	3.2	2.8	2.2	2.5	4.4	4.7	4.7	2.8	2.0	2.3	27
20	52	3.2	7.1	2.1	3.2	4.7	4.7	3.6	6.1	2.3	2.3	43
21	9.9	3.2	5.5	2.0	2.5	3.9	4.7	3.4	3.4	2.2	2.3	3.6
22	4.4	3.2	2.8	1.9	2.3	65	4.7	3.4	2.8	2.0	37	5.2
23	3.9	3.2	3.0	1.8	2.5	9.9	4.7	3.2	2.3	1.8	3.2	6.1
24	6.1	3.2	2.8	2.3	35	6.5	13	3.0	2.5	1.6	7.8	4.7
25	7.1	3.2	2.8	3.0	12	5.5	7.8	3.0	2.5	9.6	3.4	24
26	15	3.4	3.6	2.7	5.5	5.5	29	2.8	2.5	2.5	2.5	4.4
27	4.1	3.2	3.0	2.5	4.9	6.8	6.8	2.8	2.2	2.0	2.5	8.2
28	3.6	3.2	2.8	2.8	5.2	7.5	11	2.8	50	1.6	2.3	5.8
29	3.6	9.9	2.8	2.5	---	6.5	7.5	2.5	11	1.8	2.3	3.2
30	3.6	3.2	2.2	2.3	---	4.4	5.2	2.5	4.4	2.3	2.2	3.0
31	29	---	2.0	2.2	---	3.9	---	3.2	---	2.0	12	---
TOTAL	310.3	110.5	138.3	101.1	138.7	265.7	279.2	133.4	203.5	115.2	198.4	210.8
MEAN	10.0	3.68	4.46	3.26	4.95	8.57	9.31	4.30	6.78	3.72	6.40	7.03
MAX	65	9.9	41	33	35	65	48	10	50	20	37	43
MIN	2.8	3.2	2.0	1.5	2.1	3.0	3.9	2.5	2.2	1.6	2.2	2.0
CFSM	2.09	.77	.93	.68	1.04	1.79	1.95	.90	1.42	.78	1.34	1.47
IN.	2.41	.86	1.08	.79	1.08	2.07	2.17	1.04	1.58	.90	1.54	1.64

CAL YR 1976 TOTAL 2538.3 MEAN 6.94 MAX 70 MIN 2.0 CFSM 1.45 IN 19.75
WTR YR 1977 TOTAL 2205.1 MEAN 6.04 MAX 65 MIN 1.5 CFSM 1.26 IN 17.16

01475545 NAYLOR CREEK AT WEST CHESTER PIKE NEAR PHILADELPHIA, PA

LOCATION.--Lat 39°58'13", long 75°18'11", Delaware County, Hydrologic Unit 02040203, on right bank 200 ft (60 m) north of West Chester Pike, 0.4 mi (0.6 km) west of intersection of West Chester Pike and U.S. Highway 1 and 8 mi (13 km) west of City Hall, Philadelphia.

DRAINAGE AREA.--1.10 mi^2 (2.85 km^2).

PERIOD OF RECORD.--June 1972 to current year.

REVISED RECORDS.--WDR PA-74: 1972(M), 1973.

GAGE.--Water-stage recorder, concrete control, and crest-stage gage. Altitude of gage is 215 ft (65.5 m), from topographic map.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--5 years, 1.72 ft^3/s (0.049 m^3/s), 21.28 in/yr (541 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 568 ft^3/s (16.1 m^3/s) Aug. 23, 1974, gage height, 6.58 ft (2.006 m), from rating curve extended above 90 ft^3/s (2.55 m^3/s) on basis of computation of peak flow through culvert and flow-over-road measurement; minimum, 0.08 ft^3/s (0.002 m^3/s) Jan. 1, 1977, gage height, 0.18 ft (0.055 m), result of freezeup; minimum daily, 0.24 ft^3/s (0.007 m^3/s) Sept. 12-16, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 150 ft^3/s (4.25 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Oct. 3	0740	278	7.87	2.47	0.753	Aug. 3	0915	186	5.27	1.84	0.561
Feb. 24	1800	307	8.69	2.71	0.826	Aug. 6	1720	204	5.78	1.95	0.594
Mar. 22	1320	228	6.46	2.11	0.643	Aug. 31	Unknown	207	5.86	1.97	0.600
June 1	2225	277	7.84	2.46	0.750	Sept. 6	Unknown	311	8.81	2.74	0.835
June 28	1940	386	10.9	3.46	1.055	Sept.19	2120	*390	11.0	*3.50	1.067
July 12	0755	158	4.47	1.66	0.506	Sept.25	0400	305	8.64	2.69	0.820

Minimum, 0.08 ft^3/s (0.002 m^3/s) Jan. 1, gage height, 0.18 ft (0.055 m), result of freezeup, minimum daily discharge, 0.24 ft^3/s (0.007 m^3/s) Sept. 12-16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	.87	.65	.35	.37	.47	.65	.76	8.0	.47	3.5	.50
2	1.5	.87	.65	.35	.38	.40	6.1	.79	1.0	.47	.41	.40
3	9.4	.87	.65	.35	.40	.40	.91	.76	.58	.47	3.7	.35
4	.76	.87	.65	.39	.40	4.1	6.8	1.6	.56	.47	.44	.35
5	.65	1.1	.65	.35	.65	.92	10	1.9	.56	.47	.40	.35
6	.65	.65	.65	.30	.45	.58	1.2	.77	1.6	2.4	6.2	5.0
7	.65	.65	9.4	.40	.40	.56	1.0	.76	.65	.56	.47	.40
8	.65	.65	.65	.35	.45	.47	.94	.76	.56	.40	1.4	.34
9	5.5	.65	.47	.30	.76	.47	.87	.95	6.6	.40	.43	.33
10	.65	.65	.56	7.9	1.4	.47	.87	.65	.89	.40	.54	.33
11	.56	.76	.65	.76	2.1	.52	.87	.65	.56	.40	.40	.25
12	.56	.76	.76	.56	1.4	.47	.87	.65	.56	4.7	1.1	.24
13	.56	.65	.56	.56	1.1	11	.87	.65	.56	.40	1.5	.24
14	.56	.65	.56	.65	.65	1.1	.87	.65	1.9	.40	2.3	.24
15	.56	.65	.56	.76	.56	.74	.76	.65	1.5	.40	.42	.24
16	.65	.65	.56	.56	.40	.65	1.6	.65	.65	.40	.40	.24
17	1.8	.65	.56	.50	.40	.65	.76	.65	.65	.40	1.9	1.7
18	1.0	.65	.56	.46	.47	3.9	.76	1.3	.65	.40	.40	.29
19	.56	.65	.56	.43	.47	.67	.76	.68	.65	.40	.34	20
20	13	.65	2.0	.39	.87	.79	.76	.65	1.1	.54	.33	7.5
21	1.4	.65	.76	.37	.47	.57	.76	.65	.58	.40	.33	.43
22	.87	.56	.56	.35	.47	27	.76	.65	.56	.40	7.4	.79
23	.76	.56	.56	.33	.56	1.2	.76	.65	.56	.37	.40	1.3
24	1.4	.56	.56	.50	15	.84	3.6	.67	.56	.33	1.5	.54
25	1.4	.56	.56	.76	1.4	.76	.93	.70	.60	2.5	.42	8.6
26	3.0	.65	.76	.56	.62	.76	6.6	.56	.56	.34	.35	.55
27	.76	.87	.56	.47	.57	.76	.84	.56	.56	.33	.35	1.7
28	.65	.87	.56	.47	.54	.76	2.2	.56	25	.33	.35	.64
29	.65	2.4	.56	.44	---	.76	1.0	.55	.97	.33	.35	.48
30	.76	.65	.47	.41	---	.75	.76	.47	.50	.49	.35	.47
31	6.2	---	.40	.39	---	.65	---	.47	---	.33	3.0	---
TOTAL	59.77	22.88	28.62	21.72	33.71	64.14	56.43	23.37	60.23	21.10	41.38	54.79
MEAN	1.93	.76	.92	.70	1.20	2.07	1.88	.75	2.01	.68	1.33	1.83
MAX	13	2.4	9.4	7.9	15	27	10	1.9	25	4.7	7.4	20
MIN	.56	.56	.40	.30	.37	.40	.65	.47	.50	.33	.33	.24
CFSM	1.76	.69	.84	.64	1.09	1.88	1.71	.68	1.83	.62	1.21	1.66
IN.	2.02	.77	.97	.73	1.14	2.17	1.91	.79	2.04	.71	1.40	1.85

CAL YR 1976 TOTAL 514.17 MEAN 1.40 MAX 23 MIN .40 CFSM 1.27 IN 17.37
WTR YR 1977 TOTAL 488.14 MEAN 1.34 MAX 27 MIN .24 CFSM 1.22 IN 16.49

01475550 COBBS CREEK AT DARBY, PA

LOCATION.--Lat 39°55'02", long 75°14'52", Delaware County, Hydrologic Unit 02040202, on right bank at Darby, 60 ft (18 m) upstream from dam, 200 ft (61 m) upstream from bridge on Woodland Avenue, and 1.1 mi (1.8 km) upstream from mouth.

DRAINAGE AREA.--22.0 mi^2 (57.0 km^2).

PERIOD OF RECORD.--February 1964 to current year.

REVISED RECORDS.--WDR PA-75-1: 1974(M).

GAGE.--Water-stage recorder and masonry control. Datum of gage is 11.93 ft (3.636 m) above mean sea level. Prior to Apr. 29, 1964, nonrecording gage at same site and datum.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--13 years, 29.2 ft^3/s (0.83 m^3/s), 18.01 in/yr (457 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,490 ft^3/s (127 m^3/s) June 29, 1973, gage height, 10.98 ft (3.347 m), from rating curve extended above 850 ft^3/s (24.1 m^3/s) on basis of computation of peak flow through culvert; maximum gage height, 12.85 ft (3.917 m) Aug. 23, 1974, backwater from storage tank; no flow on many days in 1964-66.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,200 ft^3/s (34.0 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Mar. 22	1445	1,500	42.5	5.10	1.554
June 1	2345	1,370	38.8	4.83	1.472
June 28	2215	1,680	47.6	5.49	1.673
Aug. 1	1545	1,320	37.4	4.72	1.439
Aug. 31	1815	1,440	40.8	4.98	1.518
Sept. 6	1945	1,310	37.1	4.68	1.426
Sept.20	0100	*1,740	49.3	*5.62	1.713

Minimum discharge, 4.0 ft^3/s (0.11 m^3/s) Dec. 3, gage height, 1.16 ft (0.354 m), result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	16	8.3	6.4	7.9	13	14	20	75	10	292	28
2	11	11	8.3	6.1	8.3	12	144	18	120	9.5	16	7.9
3	224	11	7.4	5.8	8.7	11	32	18	13	9.3	61	7.0
4	20	11	7.0	6.6	8.7	91	94	39	11	8.3	9.8	6.2
5	11	13	7.0	5.8	13	48	254	47	12	8.5	7.4	6.3
6	10	11	8.3	5.2	8.3	22	33	24	39	41	110	188
7	9.7	11	194	7.0	7.8	16	29	17	24	32	16	24
8	9.3	10	20	5.8	8.5	13	29	14	11	11	14	8.4
9	138	10	11	5.4	10	13	26	26	157	9.1	17	7.7
10	17	10	10	194	26	13	26	20	33	8.5	9.1	7.8
11	10	10	9.9	17	36	12	24	13	12	8.1	13	6.5
12	9.7	9.9	11	10	26	11	24	13	11	100	16	6.1
13	9.5	9.9	9.9	8.9	26	228	23	12	11	13	37	6.2
14	8.7	9.9	8.9	9.5	18	47	23	12	18	9.5	121	5.8
15	8.3	9.7	9.3	12	12	22	21	22	58	8.9	12	5.6
16	8.3	9.7	9.3	10	11	16	23	12	11	9.3	7.8	5.6
17	11	9.7	9.3	7.6	9.3	13	20	11	11	8.9	50	43
18	10	9.5	8.9	7.0	9.1	94	20	24	11	8.9	11	7.7
19	8.1	9.3	8.9	6.8	9.3	21	20	29	10	8.5	7.8	97
20	215	9.5	23	6.6	13	22	16	11	21	11	7.0	262
21	68	9.5	26	6.5	9.9	18	17	12	24	8.9	6.7	11
22	12	8.9	8.9	6.4	8.3	404	17	11	10	6.9	191	15
23	10	7.9	9.3	6.3	8.7	39	17	11	8.7	6.0	9.7	19
24	18	8.1	8.7	9.5	219	29	66	11	8.7	5.9	63	14
25	27	8.1	8.9	12	66	24	43	11	30	39	14	167
26	73	8.1	15	11	27	23	206	11	10	17	7.6	13
27	11	8.7	10	9.5	18	22	33	10	8.3	6.7	7.3	16
28	10	8.3	9.1	11	21	23	47	11	224	6.2	6.9	18
29	9.9	41	9.1	9.5	---	22	41	10	131	6.0	6.9	8.8
30	9.9	11	7.6	8.7	---	20	21	9.9	13	7.8	6.9	8.4
31	141	---	7.0	8.3	---	16	---	10	---	6.9	128	---
TOTAL	1182.4	330.7	509.3	442.2	654.8	1378	1403	519.9	1136.7	450.6	1282.9	1027.0
MEAN	38.1	11.0	16.4	14.3	23.4	44.5	46.8	16.8	37.9	14.5	41.4	34.2
MAX	224	41	194	194	219	404	254	47	224	100	292	262
MIN	8.1	7.9	7.0	5.2	7.8	11	14	9.9	8.3	5.9	6.7	5.6
CFSM	1.73	.50	.75	.65	1.06	2.02	2.13	.76	1.72	.66	1.88	1.56
IN.	2.00	.56	.86	.75	1.11	2.33	2.37	.88	1.92	.76	2.17	1.74

CAL YR 1976 TOTAL 9993.3 MEAN 27.3 MAX 345 MIN 5.3 CFSM 1.24 IN 16.90
WTR YR 1977 TOTAL 10317.5 MEAN 28.3 MAX 404 MIN 5.2 CFSM 1.29 IN 17.45

01476030 LITTLE CRUM CREEK AT MICHIGAN AVENUE, SWARTHMORE, PA

LOCATION.--Lat 39°53'42", long 75°20'19", Delaware County, Hydrologic Unit 02040202, on left bridge abutment at Michigan Avenue, Ridley Township, Swarthmore.

DRAINAGE AREA.--1.15 mi² (2.98 km²).

PERIOD OF RECORD.--May 1971 to current year.

GAGE.--Water-stage recorder and concrete and rock control. Altitude of gage is 40 ft (12 m), from topographic map.

REMARKS.--Records fair except those for the period Dec. 12 to Feb. 2, which are poor.

AVERAGE DISCHARGE.--6 years, 1.45 ft³/s (0.041 m³/s), 17.10 in/yr (434 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 605 ft³/s (17.1 m³/s) Sept. 13, 1971, gage height, 9.77 ft (2.978 m), from crest-stage indicator, from rating curve extended above 50 ft³/s (1.4 m³/s); minimum, 0.02 ft³/s (0.001 m³/s) Sept. 16, 17, 1972; minimum gage height, 1.59 ft (0.485 m) Sept. 18, 19, 23, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft³/s (2.83 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 24	1810	112	3.17	4.19	1.277	June 28	1930	125	3.54	4.33	1.320
Mar. 22	1540	160	4.53	4.66	1.420	Aug. 31	1750	*277	7.84	*5.61	1.710

Minimum daily discharge, 0.10 ft³/s (0.003 m³/s) many days in December and January.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.60	.34	.20	.10	.13	.76	.58	.61	5.5	.42	3.1	.42
2	.18	.28	.20	.10	.15	.73	4.4	.58	1.5	.25	.27	.23
3	.32	.28	.18	.12	.19	.70	.86	.52	.35	.27	3.1	.21
4	.18	.30	.18	.12	.13	3.6	4.4	.58	.27	.27	.27	.23
5	.14	.28	.18	.10	.12	1.8	9.8	.73	.27	.25	.30	.19
6	.12	.28	.18	.10	.15	.82	1.1	.61	.73	1.0	7.6	3.4
7	.12	.28	4.5	.16	.15	.76	.86	.52	.32	1.3	.32	.21
8	.10	.26	.52	.12	.15	.73	.79	.52	.32	.32	.45	.19
9	1.7	.24	.38	.10	.23	.70	.73	.58	4.9	.27	.47	.21
10	.24	.22	.30	3.0	2.7	.67	.73	.52	.50	.27	.55	.17
11	.18	.20	.28	.50	3.8	.67	.73	.52	.32	.27	.55	.19
12	.16	.22	.30	.32	1.5	.67	.70	.52	.27	1.7	.50	.19
13	.16	.22	.26	.21	1.1	8.4	.70	.50	.21	.32	2.7	.19
14	.12	.22	.20	.23	.55	1.9	.67	.47	.19	.30	4.5	.19
15	.12	.20	.20	.25	.47	.86	.64	.45	.71	.27	.47	.19
16	.12	.18	.20	.17	.45	.82	.64	.47	.19	.27	.35	.13
17	.18	.20	.20	.12	.40	.86	.61	.42	.21	.23	2.8	1.2
18	.16	.20	.16	.10	.40	3.2	.58	.47	.17	.21	.40	.13
19	.12	.20	.16	.10	.35	.89	.50	.50	.17	.23	.32	3.1
20	4.5	.20	.40	.12	.42	.86	.47	.42	.47	.25	.30	1.2
21	.60	.18	.16	.10	.37	.86	.42	.47	.25	.23	.27	.12
22	.22	.20	.16	.10	.37	21	.40	.42	.23	.23	6.9	.13
23	.18	.18	.16	.10	.40	1.8	.40	.35	.23	.23	.42	.17
24	.32	.18	.16	.13	11	.79	.79	.30	.23	.30	2.4	.13
25	.42	.18	.16	.19	2.7	.73	.58	.27	.52	2.6	.45	4.0
26	1.1	.20	.20	.17	.89	.79	6.5	.27	.50	.27	.27	.15
27	.22	.20	.20	.13	.82	1.1	.86	.25	.82	.25	.25	.25
28	.18	.18	.18	.15	.82	.64	1.8	.27	8.8	.23	.23	.19
29	.18	.54	.14	.15	---	.64	.82	.25	.61	.23	.21	.15
30	.18	.24	.12	.13	---	.61	.64	.25	.35	.30	.19	.13
31	3.8	---	.10	.13	---	.58	---	.25	---	.27	13	---
TOTAL	16.92	7.08	10.92	7.62	30.91	59.94	43.70	13.86	30.11	13.81	53.91	17.59
MEAN	.55	.24	.35	.25	1.10	1.93	1.46	.45	1.00	.45	1.74	.59
MAX	4.5	.54	4.5	3.0	11	21	9.8	.73	8.8	2.6	13	4.0
MIN	.10	.18	.10	.10	.12	.58	.40	.25	.17	.21	.19	.12
CFSM	.48	.21	.30	.22	.96	1.68	1.27	.39	.87	.39	1.51	.51
IN.	.55	.23	.35	.25	1.00	1.94	1.41	.45	.97	.45	1.74	.57

CAL YR 1976 TOTAL 370.40 MEAN 1.01 MAX 14 MIN .10 CFSM .88 IN 11.97
WTR YR 1977 TOTAL 306.37 MEAN .84 MAX 21 MIN .10 CFSM .73 IN 9.90

01476200 DELAWARE RIVER AT EDDYSTONE, PA

LOCATION.--Lat 39°50'57', long 75°19'43", Delaware County, Hydrologic Unit 02040202, at center of river on a line between piers 11 and 12 just above Chester Range front light through channel station +97.2 to the middele of Monds Island on the New Jersey shore.

DRAINAGE AREA.--10,200 mi² (26,400 km²).

PERIOD OF RECORD.--August 1949 to September 1970, February 1974 to current year.

REMARKS.--Samples collected about 5 to 15 ft (2 to 5 m) from bottom.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE (DEG C)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)
OCT												
07...	0912	334	19.0	96	63	24	8.8	23	3.6	41	34	64
NOV												
04...	1000	180	9.5	20	3	2.4	3.3	10	2.5	20	16	45
DEC												
02...	0945	245	5.5	73	42	19	6.1	16	2.4	37	30	44
JAN												
06...	1030	285	.5	80	48	20	7.2	20	2.8	39	32	51
FEB												
17...	0915	447	.5	110	72	29	9.2	39	3.5	47	39	77
MAR												
03...	1000	243	5.0	66	31	17	5.8	16	2.9	43	35	36
APR												
14...	0945	151	10.5	53	35	15	3.8	7.7	1.5	22	18	25
MAY												
12...	0940	208	17.0	64	43	17	5.3	13	2.1	26	21	36
JUN												
02...	0915	252	21.5	73	45	18	6.8	17	2.5	34	28	46
JUL												
07...	0930	700	27.0	99	130	28	15	85	6.0	40	33	74
AUG												
04...	0915	732	27.0	110	150	30	17	84	6.6	44	36	73
SEP												
08...	0930	900	27.0	150	110	28	19	120	7.6	48	39	83

DATE	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)	DIS-SOLVED NITRITE (N) (MG/L)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED ORTHO. PHOS-PHORUS (P) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)
OCT											
07...	36	.2	2.3	202	191	1.7	.17	1.9	.07	60	150
NOV											
04...	15	.1	5.8	118	100	1.1	.04	1.1	.04	1100	170
DEC											
02...	21	.2	6.1	137	139	1.2	.07	1.3	.05	100	230
JAN											
06...	29	.2	5.8	160	162	1.4	.05	1.4	.06	330	200
FEB											
17...	62	.3	6.1	268	257	1.3	.20	1.5	.05	160	330
MAR											
03...	25	.2	4.6	159	135	1.3	.06	1.4	.05	210	180
APR											
14...	12	.1	4.9	89	92	2.4	.05	2.4	.04	130	110
MAY											
12...	17	.1	2.8	121	124	3.9	.04	3.9	.05	50	80
JUN											
02...	23	.1	.2	145	135	.87	.09	.96	.02	90	110
JUL											
07...	150	.2	.5	332	389	2.0	.27	2.3	.05	90	250
AUG											
04...	150	.2	.7	435	394	2.1	.21	2.3	.08	40	120
SEP											
08...	200	.3	.7	513	493	2.1	.16	2.3	.05	20	230

01477000 CHESTER CREEK NEAR CHESTER, PA

LOCATION.--Lat 39°52'08", long 75°24'31", Delaware County, Hydrologic Unit 02040202, on right bank 30 ft (9 m) downstream from Dutton Mill Bridge and 3 mi (5 km) northwest of Chester.

DRAINAGE AREA.--61.1 mi^2 (158.2 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1931 to current year. Monthly discharges only for some periods, published in WSP 1302.

REVISED RECORDS.--WDR PA-72: 1971.

GAGE.--Water-stage recorder. Datum of gage is 23.41 ft (7.135 m) above mean sea level (Penn Central Railroad benchmark). Prior to June 27, 1966, water-stage recorder at site 50 ft (15 m) upstream and June 28, 1966 to Oct. 4, 1967, nonrecording gage 150 ft (46 m) upstream, all at same datum.

REMARKS.--Records fair except those for winter periods, which are poor.

AVERAGE DISCHARGE.--46 years, 82.7 ft^3/s (2.34 m^3/s), 18.38 in/yr (467 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,000 ft^3/s (595 m^3/s) Sept. 13, 1971, gage height, 24.59 ft (7.495 m), from floodmark, from rating curve extended above 2,400 ft^3/s (68.0 m^3/s) on basis of contracted-opening measurement at gage height 13.57 ft (4.136 m) and slope-area measurement of peak flow; minimum, 0.3 ft^3/s (0.008 m^3/s) Aug. 7, 1934, gage height, 0.28 ft (0.085 m); minimum daily, 6.5 ft^3/s (0.18 m^3/s) Sept. 25, 1941.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,400 ft^3/s (39.6 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 24	Unknown	Unknown		Unknown	
Mar. 13	Unknown	2,220	62.9	7.90	2.408
Mar. 22	1615	*2,250	63.7	*7.96	2.426

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Apr. 5	0515	1,520	43.0	6.52	1.987
June 29	0015	1,820	51.5	7.14	2.176

Minimum discharge, 17 ft^3/s (0.48 m^3/s) Dec. 30, result of freezeup; minimum gage height, 2.78 ft (0.847 m) July 24, 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	81	121	31	25	21	49	68	68	89	48	36	149
2	44	70	32	28	21	40	196	65	225	42	32	45
3	55	61	30	28	25	35	164	66	50	36	37	37
4	50	56	30	31	30	150	99	63	40	33	32	31
5	37	53	29	30	25	100	785	79	37	33	26	27
6	36	48	28	29	23	60	176	77	48	33	50	37
7	36	45	254	33	22	50	112	72	48	70	87	50
8	40	42	83	32	21	40	99	58	38	42	32	30
9	150	41	46	32	20	38	87	58	114	36	31	27
10	70	40	41	260	30	38	85	56	103	32	27	27
11	60	38	39	85	100	37	81	53	55	31	36	25
12	51	38	38	50	310	35	81	51	42	63	32	23
13	47	37	37	40	245	350	77	51	38	45	38	24
14	44	37	33	42	109	150	77	48	38	34	99	23
15	40	37	36	50	66	100	75	45	60	30	53	22
16	36	36	34	41	47	77	72	44	42	28	32	22
17	32	36	34	37	37	66	66	45	37	26	66	40
18	30	36	33	30	35	134	66	42	42	25	56	31
19	28	36	32	25	34	95	66	48	36	25	32	25
20	42	36	34	24	44	72	66	44	33	26	28	209
21	230	34	53	23	43	70	66	42	40	30	26	45
22	72	34	34	22	33	785	65	38	34	23	153	37
23	51	32	33	22	36	258	65	38	32	22	44	34
24	44	32	30	35	400	112	68	38	31	21	51	38
25	45	32	30	45	200	91	95	37	32	26	65	172
26	77	32	32	35	70	83	131	37	41	55	33	63
27	66	32	31	30	60	77	112	36	32	26	30	47
28	51	33	31	27	56	75	81	33	288	23	26	63
29	45	52	30	25	---	77	107	31	585	22	26	41
30	41	43	26	23	---	73	75	31	68	23	26	34
31	119	---	27	22	---	73	---	33	---	23	264	---
TOTAL	1850	1300	1311	1261	2163	3490	3463	1527	2398	1032	1606	1478
MEAN	59.7	43.3	42.3	40.7	77.3	113	115	49.3	79.9	33.3	51.8	49.3
MAX	230	121	254	260	400	785	785	79	585	70	264	209
MIN	28	32	26	22	20	35	65	31	31	21	26	22
CFSM	.98	.71	.69	.67	1.27	1.85	1.88	.81	1.31	.55	.85	.81
IN.	1.13	.79	.80	.77	1.32	2.12	2.11	.93	1.46	.63	.98	.90

CAL YR 1976 TOTAL 27740 MEAN 75.8 MAX 822 MIN 24 CFSM 1.24 IN 16.89
WTR YR 1977 TOTAL 22879 MEAN 62.7 MAX 785 MIN 20 CFSM 1.03 IN 13.93

01477000 CHESTER CREEK NEAR CHESTER, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1975 to current year.

COOPERATION.--Water-quality data were furnished by the Pennsylvania Department of Environmental Resources.

WATER-QUALITY DATA, OCTOBER 1976 TO AUGUST 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA,MG) (MG/L)
OCT								
20...	1000	9813	27	330	11.0	3	--	98
NOV								
22...	1130	9813	34	360	4.0	4	--	108
DEC								
15...	1200	9813	42	360	--	7	--	80
JAN								
31...	1400	9813	22	470	1.0	4	--	94
FEB								
15...	1200	9813	63	330	2.0	9	--	72
MAR								
16...	1400	9813	74	300	13.0	10	--	78
APR								
18...	1000	9813	66	280	14.0	2	--	76
MAY								
23...	0900	9813	38	340	20.0	3	--	86
JUN								
28...	1000	9813	31	320	21.0	2	--	88
JUL								
06...	1400	9813	32	350	25.0	--	--	82
AUG								
08...	1230	9813	33	235	27.0	8	8.5	62

DATE	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL FILT- RABLE RESIDUE (MG/L)
OCT									
20...	0	0	24	9.5	64	26	36	.1	226
NOV									
22...	--	0	22	13	172	38	42	<.1	230
DEC									
15...	0	0	23	5.5	66	42	38	<.1	216
JAN									
31...	0	0	25	7.5	90	40	61	.1	252
FEB									
15...	0	0	17	7.0	50	36	56	<.1	182
MAR									
16...	0	0	20	6.5	52	30	36	.1	222
APR									
18...	0	--	19	7.0	46	20	32	.1	170
MAY									
23...	--	0	21	8.0	58	26	43	.1	230
JUN									
28...	0	0	19	10	40	24	[illegible]	.1	226
JUL									
06...	--	0	21	7.0	48	26	39	--	242
AUG									
08...	0	0	18	4.0	42	14	23	.1	156

01477000 CHESTER CREEK NEAR CHESTER, PA--Continued

WATER-QUALITY DATA, OCTOBER 1976 TO AUGUST 1977

DATE	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	TOTAL RESI-DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
OCT								
20...	<5	--	4.6	.18	.99	1.0	330	.05
NOV								
22...	6	262	4.1	.05	2.9	1.0	400	.00
DEC								
15...	6	--	3.4	.05	5.0	.91	420	.10
JAN								
31...	6	256	2.6	.03	7.5	1.5	360	.34
FEB								
15...	20	210	2.6	.05	2.4	.65	1010	<.01
MAR								
16...	8	230	2.3	.06	1.4	.45	1090	<.01
APR								
18...	16	186	3.0	.30	.99	.45	360	<.01
MAY								
21...	8	266	3.6	.70	1.7	.77	570	.07
JUN								
28...	12	--	4.1	.06	.12	.49	200	<.01
JUL								
06...	6	266	3.8	.06	.06	--	210	.03
AUG								
08...	20	--	2.5	.03	.07	.41	320	--

DATE	TIME	CODE FOR AGENCY COL-LECTING SAMPLE	TOTAL ALUM-INUM (AL) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)
FEB										
15...	1100	9813	200	<3	<10	30	<50	230	<10	20

01477050 DELAWARE RIVER AT CHESTER, PA

LOCATION.--Lat 39°50'12", long 75°22'00", Delaware County, Hydrologic Unit 02040202, water-quality recorder located at auxiliary tidal-gaging station at end of Reynolds Aluminum Company pier, 0.5 mi (0.8 km) downstream from Chester Creek in Chester.

DRAINAGE AREA.--10,300 mi^2 (26,700 km^2).

PERIOD OF RECORD.--December 1961 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1963 to current year.
pH: January 1968 to current year.
WATER TEMPERATURES: December 1961 to current year.
DISSOLVED OXYGEN: December 1961 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 5,900 micromhos Oct. 7, 1965; minimum, 111 micromhos Apr. 26, 27, 1972.
pH: Maximum, 8.7 Sept. 13, 14, 1971; minimum, 5.5 Dec. 10, 11, 1969.
WATER TEMPERATURES: Maximum, 33.0°C July 21, 1977; minimum, freezing point on many days during winter periods.
DISSOLVED OXYGEN: Maximum, 12.6 mg/L Feb. 2, 3, 1976; minimum, 0.0 mg/L on many days.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 1,360 micromhos July 28-31, Aug. 1; minimum, 120 micromhos Mar. 19.
pH: Maximum, 8.1 Mar. 9; minimum, 6.1 Dec. 14.
WATER TEMPERATURES: Maximum, 33.0°C July 21; minimum, freezing point point on many days during Jan. and Feb.
DISSOLVED OXYGEN: Maximum, 10.3 mg/L Mar. 24-26; minimum, 0.0 mg/L July 6-9.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	194	176	182	267	253	259	298	288	293
2	---	---	---	197	177	186	270	255	262	307	290	295
3	---	---	---	206	180	196	281	261	270	297	289	293
4	---	---	---	218	191	201	294	261	272	305	294	298
5	552	386	457	219	193	201	300	270	280	306	297	302
6	542	378	442	209	194	201	287	270	279	312	303	307
7	479	378	423	207	194	200	295	272	281	319	306	313
8	465	369	412	225	190	198	298	274	283	325	309	313
9	652	366	439	211	191	196	317	288	301	328	313	319
10	456	329	361	215	194	200	319	306	313	334	315	322
11	342	290	322	247	192	205	318	296	310	334	316	323
12	306	256	282	256	198	220	313	289	302	419	315	345
13	273	236	255	233	205	218	306	280	291	393	347	365
14	247	221	232	230	209	215	306	273	288	---	---	---
15	241	217	227	226	208	212	301	279	289	---	---	---
16	228	206	217	227	206	212	295	276	285	---	---	---
17	219	203	211	223	209	214	299	281	288	---	---	---
18	219	197	207	233	212	219	304	280	289	---	---	---
19	214	198	205	230	214	221	294	278	285	---	---	---
20	214	195	204	237	216	225	295	278	286	---	---	---
21	214	198	203	241	219	229	302	279	286	---	---	---
22	200	193	196	247	223	233	287	273	281	---	---	---
23	201	191	195	254	226	237	290	277	282	---	---	---
24	200	193	196	258	232	240	285	276	280	---	---	---
25	199	191	195	252	234	244	286	275	279	526	417	463
26	212	189	194	261	237	245	291	277	283	507	418	456
27	209	190	194	266	239	247	306	279	284	482	422	443
28	206	190	197	296	240	249	292	281	285	524	425	453
29	208	189	196	266	242	251	301	283	292	---	---	---
30	200	186	192	269	248	256	302	287	293	---	---	---
31	212	182	190	---	---	---	302	291	298	---	---	---
MONTH	652	182	261	296	176	218	319	253	286	526	288	347

01477050 DELAWARE RIVER AT CHESTER, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	315	302	309	207	174	184	248	226	232
2	471	435	450	317	288	301	204	173	180	239	223	232
3	710	444	488	297	271	285	183	166	177	243	212	225
4	621	452	504	293	262	271	177	161	168	227	213	220
5	797	467	545	270	242	256	171	152	164	230	211	218
6	543	461	491	279	232	248	174	150	163	232	207	214
7	583	467	504	243	214	226	181	138	153	226	204	211
8	651	466	523	221	184	202	352	142	162	219	203	209
9	775	472	592	218	175	190	186	141	156	224	199	209
10	790	488	606	206	172	184	198	147	161	218	199	206
11	837	502	632	203	168	177	187	152	165	221	202	209
12	845	501	624	206	167	177	193	154	167	234	203	213
13	1110	507	706	201	168	178	181	156	168	231	207	215
14	1030	507	651	191	165	182	181	158	170	228	208	216
15	836	502	607	203	161	185	194	158	176	234	210	217
16	712	501	572	190	170	176	195	169	181	230	208	218
17	729	491	563	160	124	140	202	174	183	228	211	218
18	794	483	582	156	123	134	197	174	186	238	212	217
19	838	489	600	164	120	135	210	183	192	233	211	218
20	919	493	618	153	125	137	206	185	194	230	212	220
21	762	490	601	156	132	147	214	196	203	234	215	222
22	692	478	565	157	136	149	218	195	206	247	217	224
23	629	462	538	205	148	175	223	197	208	245	216	225
24	988	473	615	188	158	171	221	205	211	238	220	227
25	677	414	489	196	151	170	220	205	211	245	225	232
26	434	367	407	199	156	166	227	205	217	265	228	235
27	390	338	360	188	161	170	236	216	229	254	233	239
28	340	308	322	188	166	175	239	228	234	260	236	243
29	---	---	---	192	166	179	238	223	231	264	239	246
30	---	---	---	199	170	182	236	223	229	261	244	252
31	---	---	---	194	169	182	---	---	---	266	252	258
MONTH	1110	308	546	317	120	192	352	138	188	266	199	224

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	276	257	265	761	416	529	1360	752	1100	1080	536	784
2	311	255	266	807	431	554	1320	696	961	987	560	776
3	291	263	272	867	449	590	1220	676	937	950	548	734
4	301	272	280	893	459	618	1160	708	910	1150	533	778
5	319	276	291	851	473	634	1050	657	846	1160	583	847
6	386	282	315	997	505	698	1020	618	819	1130	575	833
7	366	287	321	974	504	727	953	575	763	1180	535	789
8	373	294	328	1000	546	753	1060	582	780	1230	572	830
9	397	293	332	1000	564	758	1100	578	783	1150	595	840
10	347	289	313	1150	518	747	1090	592	787	1320	592	888
11	387	295	324	1140	531	753	1170	548	753	1220	578	826
12	369	310	335	1050	537	744	1140	545	743	1190	607	857
13	374	316	337	926	504	666	1030	536	735	1280	637	917
14	365	317	337	779	482	611	1020	489	684	1230	636	896
15	377	319	341	832	479	624	813	458	611	1250	630	888
16	400	322	354	888	493	636	813	479	633	1350	681	1010
17	440	329	372	898	502	647	858	470	647	1350	766	1050
18	447	339	380	878	509	657	754	475	598	1350	763	1060
19	475	342	389	944	518	692	843	474	622	1340	823	1090
20	517	355	421	1020	547	726	860	495	662	1320	689	1000
21	555	352	420	1050	588	784	980	501	687	1290	679	966
22	545	357	427	984	538	733	890	501	657	1320	668	969
23	549	364	440	1110	514	730	873	461	604	1340	663	931
24	605	377	477	1090	558	774	968	492	660	1200	624	852
25	643	387	491	955	552	738	934	463	610	1020	514	755
26	687	381	483	1180	523	710	888	477	627	994	474	691
27	681	399	505	1150	795	795	925	490	650	755	394	522
28	776	423	538	1360	607	868	896	503	663	465	335	390
29	982	351	479	1360	648	925	898	507	670	363	287	324
30	710	383	505	1360	716	1030	964	530	721	313	274	294
31	---	---	---	1360	747	1070	1090	504	774	---	---	---
MONTH	982	255	378	1360	416	726	1360	458	732	1350	274	813

01477050 DELAWARE RIVER AT CHESTER, PA--Continued

PH (UNITS), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	6.9	6.6	6.7	6.7	6.6	6.6	6.9	6.8	6.9
2	---	---	---	6.8	6.7	6.7	6.7	6.7	6.7	6.8	6.8	6.8
3	---	---	---	6.8	6.7	6.7	6.8	6.7	6.7	6.8	6.8	6.8
4	---	---	---	6.8	6.7	6.7	6.8	6.7	6.7	6.9	6.8	6.8
5	6.7	6.6	6.6	6.7	6.7	6.7	6.7	6.6	6.7	6.9	6.8	6.8
6	6.7	6.4	6.6	6.7	6.6	6.7	6.7	6.6	6.7	6.8	6.5	6.7
7	6.6	6.6	6.6	6.7	6.6	6.6	6.7	6.6	6.7	6.9	6.8	6.8
8	6.8	6.6	6.6	6.7	6.6	6.6	6.8	6.6	6.7	6.9	6.8	6.9
9	6.8	6.6	6.7	6.6	6.6	6.6	6.7	6.6	6.6	6.9	6.8	6.8
10	6.8	6.7	6.7	6.8	6.6	6.7	6.7	6.6	6.7	6.8	6.8	6.8
11	6.8	6.7	6.8	6.9	6.7	6.7	6.7	6.7	6.7	6.8	6.8	6.8
12	6.8	6.7	6.8	6.8	6.7	6.7	6.7	6.6	6.7	6.9	6.8	6.8
13	6.8	6.7	6.8	6.8	6.7	6.7	6.8	6.7	6.7	6.8	6.8	6.8
14	6.8	6.7	6.7	6.7	6.7	6.7	6.8	6.1	6.7	---	---	---
15	6.7	6.6	6.7	6.7	6.6	6.7	6.9	6.8	6.8	---	---	---
16	6.7	6.5	6.6	6.7	6.6	6.7	6.9	6.8	6.8	---	---	---
17	6.6	6.5	6.5	6.7	6.6	6.7	6.9	6.8	6.8	---	---	---
18	6.7	6.5	6.6	6.7	6.6	6.6	6.9	6.8	6.9	---	---	---
19	6.7	6.6	6.7	6.7	6.6	6.6	6.9	6.8	6.9	---	---	---
20	6.7	6.6	6.6	6.7	6.6	6.6	6.9	6.8	6.8	---	---	---
21	6.7	6.7	6.7	6.8	6.6	6.6	7.0	6.8	6.9	---	---	---
22	---	---	---	6.8	6.6	6.6	6.9	6.9	6.9	---	---	---
23	---	---	---	7.0	6.7	6.7	6.9	6.8	6.9	---	---	---
24	---	---	---	6.9	6.7	6.7	6.9	6.9	6.9	---	---	---
25	---	---	---	6.7	6.7	6.7	6.9	6.9	6.9	6.9	6.7	6.8
26	6.8	6.7	6.7	6.7	6.7	6.7	6.9	6.8	6.9	6.8	6.7	6.7
27	6.8	6.7	6.8	6.8	6.7	6.7	6.9	6.8	6.9	6.8	6.7	6.7
28	6.9	6.8	6.8	6.8	6.6	6.7	6.9	6.5	6.8	6.8	6.7	6.7
29	6.8	6.7	6.8	6.7	6.6	6.7	6.9	6.8	6.8	---	---	---
30	6.8	6.7	6.7	6.8	6.6	6.7	6.9	6.8	6.8	---	---	---
31	6.8	6.7	6.7	---	---	---	6.9	6.8	6.8	---	---	---
MONTH	6.9	6.4	6.7	7.0	6.6	6.7	7.0	6.1	6.8	6.9	6.5	6.8

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	7.1	6.9	7.0	7.6	6.8	6.8	7.0	6.7	6.8
2	6.7	6.6	6.7	7.0	7.0	7.0	7.0	6.8	6.8	6.8	6.8	6.8
3	6.8	6.7	6.7	7.1	6.9	7.0	6.9	6.8	6.9	6.9	6.7	6.8
4	6.7	6.6	6.7	7.0	6.9	7.0	6.9	6.8	6.9	6.8	6.7	6.7
5	6.8	6.6	6.7	7.0	6.9	6.9	6.9	6.8	6.9	6.7	6.6	6.7
6	6.8	6.6	6.7	7.7	6.9	7.0	7.6	6.8	6.9	6.8	6.6	6.7
7	6.7	6.6	6.7	7.0	6.9	7.0	7.4	7.0	7.0	6.7	6.6	6.6
8	6.8	6.6	6.7	7.0	6.9	6.9	7.3	6.9	7.0	6.6	6.6	6.6
9	6.8	6.7	6.7	8.1	6.9	6.9	7.1	6.9	6.9	6.8	6.6	6.7
10	6.8	6.7	6.7	7.2	6.8	6.9	7.2	6.8	6.9	6.8	6.7	6.7
11	6.8	6.6	6.7	6.9	6.8	6.8	7.0	6.8	6.8	6.8	6.7	6.7
12	6.8	6.6	6.7	7.0	6.7	6.7	7.0	6.7	6.8	6.9	6.7	6.7
13	6.8	6.6	6.7	6.8	6.7	6.7	6.8	6.7	6.7	6.8	6.7	6.7
14	6.7	6.6	6.7	6.9	6.6	6.7	6.7	6.6	6.7	6.9	6.7	6.7
15	6.8	6.6	6.7	7.0	6.8	6.9	6.8	6.6	6.7	6.8	6.7	6.7
16	6.8	6.6	6.7	6.9	6.9	6.9	6.8	6.7	6.7	6.8	6.7	6.7
17	6.9	6.7	6.7	6.8	6.7	6.8	6.9	6.6	6.8	6.8	6.7	6.7
18	6.7	6.7	6.7	6.8	6.7	6.7	6.7	6.6	6.6	6.7	6.6	6.7
19	6.8	6.7	6.7	6.9	6.7	6.7	6.7	6.6	6.6	6.8	6.6	6.7
20	6.8	6.7	6.7	6.8	6.6	6.7	6.7	6.6	6.6	6.8	6.6	6.7
21	6.8	6.7	6.7	6.8	6.6	6.7	6.6	6.6	6.6	6.7	6.6	6.6
22	6.8	6.7	6.8	6.8	6.6	6.7	6.6	6.6	6.6	6.6	6.5	6.6
23	6.9	6.8	6.8	7.2	6.8	6.9	6.6	6.6	6.6	6.6	6.5	6.5
24	6.9	6.8	6.8	7.1	6.9	7.0	6.7	6.6	6.6	6.6	6.5	6.5
25	6.9	6.8	6.8	7.1	6.9	7.0	6.6	6.6	6.6	6.5	6.5	6.5
26	6.9	6.9	6.9	7.0	6.9	6.9	6.8	6.6	6.6	6.5	6.4	6.5
27	6.9	6.8	6.9	7.0	6.8	6.9	6.6	6.6	6.6	6.5	6.4	6.5
28	7.0	6.9	6.9	6.9	6.7	6.8	6.7	6.6	6.6	6.6	6.4	6.5
29	---	---	---	6.8	6.7	6.7	6.8	6.6	6.7	6.5	6.4	6.5
30	---	---	---	6.8	6.6	6.7	6.8	6.7	6.8	6.5	6.5	6.5
31	---	---	---	6.9	6.6	6.7	---	---	---	6.5	6.5	6.5
MONTH	7.0	6.6	6.7	8.1	6.6	6.8	7.6	6.6	6.7	7.0	6.4	6.6

01477050 DELAWARE RIVER AT CHESTER, PA--Continued

PH (UNITS), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	6.5	6.5	6.5	6.6	6.5	6.6	6.8	6.7	6.7	6.6	6.5	6.6
2	6.5	6.5	6.5	6.6	6.5	6.6	6.7	6.6	6.7	6.6	6.5	6.6
3	6.6	6.5	6.5	6.6	6.5	6.6	6.7	6.6	6.7	6.6	6.6	6.6
4	6.6	6.5	6.6	6.6	6.5	6.6	6.7	6.6	6.7	6.7	6.6	6.6
5	6.6	6.5	6.5	6.6	6.5	6.6	6.7	6.6	6.6	6.7	6.6	6.6
6	6.6	6.5	6.6	6.6	6.5	6.6	6.7	6.6	6.6	6.7	6.6	6.6
7	6.6	6.6	6.6	6.6	6.5	6.6	6.7	6.6	6.6	6.7	6.6	6.6
8	6.7	6.6	6.6	6.6	6.5	6.6	6.7	6.6	6.6	6.7	6.6	6.7
9	6.7	6.6	6.6	6.6	6.5	6.6	6.7	6.6	6.6	6.8	6.6	6.7
10	6.7	6.6	6.6	6.6	6.5	6.6	6.7	6.6	6.6	6.8	6.6	6.7
11	6.6	6.6	6.6	6.6	6.5	6.6	6.7	6.6	6.6	6.7	6.6	6.7
12	6.6	6.6	6.6	6.7	6.6	6.6	6.7	6.6	6.6	6.7	6.7	6.7
13	6.6	6.5	6.6	6.7	6.6	6.6	6.7	6.6	6.6	6.8	6.7	6.7
14	6.6	6.5	6.5	6.7	6.6	6.6	6.7	6.6	6.6	6.8	6.7	6.8
15	6.6	6.5	6.5	6.7	6.6	6.6	7.4	6.6	6.7	6.8	6.7	6.7
16	6.6	6.5	6.5	6.7	6.6	6.6	6.6	6.6	6.6	6.8	6.7	6.8
17	6.6	6.5	6.5	6.7	6.6	6.6	6.7	6.6	6.6	6.8	6.7	6.7
18	6.6	6.5	6.6	6.7	6.6	6.6	6.6	6.6	6.6	6.8	6.7	6.7
19	6.6	6.5	6.6	6.7	6.5	6.6	6.7	6.6	6.6	6.7	6.7	6.7
20	6.6	6.5	6.5	6.6	6.6	6.6	6.7	6.6	6.6	6.8	6.6	6.7
21	6.6	6.5	6.5	6.9	6.5	6.6	6.7	6.6	6.6	6.7	6.6	6.7
22	6.7	6.5	6.6	6.8	6.6	6.6	6.7	6.6	6.6	6.7	6.7	6.7
23	6.6	6.5	6.6	6.7	6.7	6.7	6.7	6.6	6.6	6.7	6.6	6.7
24	6.6	6.5	6.6	6.8	6.7	6.7	6.7	6.6	6.7	6.7	6.6	6.6
25	6.6	6.5	6.6	6.8	6.8	6.8	6.7	6.6	6.7	6.7	6.7	6.7
26	6.6	6.5	6.6	6.8	6.7	6.8	6.7	6.6	6.6	6.7	6.7	6.7
27	6.6	6.5	6.6	6.8	6.7	6.8	6.7	6.6	6.6	6.7	6.7	6.7
28	6.7	6.5	6.6	6.9	6.7	6.8	6.7	6.6	6.6	6.7	6.6	6.7
29	6.6	6.5	6.6	6.8	6.7	6.7	6.6	6.6	6.6	6.9	6.7	6.7
30	6.6	6.5	6.6	6.8	6.7	6.7	6.6	6.6	6.6	6.8	6.7	6.7
31	---	---	---	6.8	6.7	6.7	6.7	6.6	6.6	---	---	---
MONTH	6.7	6.5	6.6	6.9	6.5	6.6	7.4	6.6	6.6	6.9	6.5	6.7

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	10.5	9.5	10.0	7.0	5.5	6.0	1.0	0.5	1.0
2	---	---	---	10.5	9.5	10.0	7.0	6.0	6.5	1.5	0.5	1.0
3	---	---	---	10.0	9.5	10.0	6.5	4.5	5.5	1.5	0.5	1.0
4	---	---	---	10.5	9.5	10.0	6.0	5.0	5.5	1.0	1.0	1.0
5	20.0	19.5	19.5	10.0	9.0	9.5	6.0	5.0	5.5	1.5	1.0	1.5
6	20.5	19.0	20.0	9.5	9.0	9.0	6.5	5.0	5.5	2.0	1.0	1.5
7	20.5	19.5	20.0	9.5	9.0	9.0	6.5	5.5	6.0	2.0	1.0	1.5
8	20.5	20.0	20.0	9.5	8.5	9.0	6.0	4.5	5.5	1.5	1.0	1.0
9	20.5	20.0	20.5	9.0	8.0	8.5	6.0	4.5	5.0	2.0	1.0	1.0
10	20.0	18.5	19.0	9.5	8.0	8.5	6.0	5.0	5.0	1.5	1.0	1.0
11	19.0	18.5	18.5	9.0	8.0	8.5	6.0	5.0	5.5	1.5	1.0	1.0
12	18.5	18.0	18.0	9.0	8.0	8.5	6.0	5.0	5.5	1.5	0.5	1.0
13	18.5	17.0	18.0	9.0	7.5	8.0	6.0	4.5	5.0	1.0	0.0	0.5
14	18.0	16.5	17.0	8.5	7.0	8.0	5.5	4.0	4.5	---	---	---
15	17.5	16.0	16.5	9.5	7.5	8.5	5.5	4.5	5.0	---	---	---
16	17.0	16.0	16.5	9.0	7.5	8.5	5.5	4.5	5.0	---	---	---
17	16.0	15.5	15.5	9.5	8.0	8.5	5.5	4.5	5.0	---	---	---
18	15.5	15.0	15.0	9.5	8.0	8.5	5.5	4.5	5.0	---	---	---
19	15.0	14.0	14.5	9.5	8.0	8.5	5.0	4.0	4.5	---	---	---
20	15.0	14.5	14.5	9.0	8.0	8.5	5.0	4.5	4.5	---	---	---
21	14.5	14.0	14.5	8.5	7.5	8.0	5.0	3.5	4.5	---	---	---
22	14.5	14.0	14.5	8.0	7.0	7.5	4.5	3.0	4.0	---	---	---
23	14.0	14.0	14.0	8.0	6.5	7.0	4.0	3.0	3.5	---	---	---
24	14.0	13.5	13.5	8.0	6.0	6.5	3.5	2.0	3.0	---	---	---
25	14.0	13.5	13.5	7.0	6.5	6.5	3.5	3.0	3.0	1.0	0.5	0.5
26	13.5	11.5	12.5	8.0	6.0	7.0	4.0	3.0	3.0	1.5	0.0	0.5
27	11.5	11.0	11.0	8.0	7.0	7.0	3.5	3.0	3.0	1.5	0.0	0.5
28	11.0	10.5	10.5	8.0	7.0	7.0	3.5	3.0	3.0	1.0	0.0	0.5
29	11.0	10.0	10.5	7.5	6.5	7.0	3.5	1.5	2.5	---	---	---
30	10.5	10.0	10.0	7.0	6.0	6.0	2.0	1.0	1.5	---	---	---
31	11.0	10.0	10.5	---	---	---	1.5	0.5	1.0	---	---	---
MONTH	20.5	10.0	15.5	10.5	6.0	8.0	7.0	0.5	4.5	2.0	0.0	1.0

01477050 DELAWARE RIVER AT CHESTER, PA--Continued

TEMPERATURE ($^{\circ}C$) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	6.5	5.0	5.5	11.5	9.0	10.0	19.0	17.0	18.0
2	1.5	0.5	1.0	6.0	4.5	5.5	11.0	9.5	10.0	19.0	17.5	18.0
3	0.5	0.0	0.5	7.0	5.0	6.0	13.0	10.0	12.0	19.0	18.0	18.5
4	1.0	0.0	0.5	7.5	6.0	6.5	12.0	11.5	12.0	18.0	17.5	17.5
5	1.0	0.0	0.5	7.5	6.0	7.0	12.0	10.5	11.5	19.0	17.5	18.0
6	0.5	0.0	0.0	7.0	6.0	7.0	11.0	9.5	10.5	20.0	18.0	19.0
7	1.5	0.0	0.5	7.0	6.0	6.5	10.0	8.5	9.5	19.5	18.5	19.0
8	1.5	0.0	0.5	7.5	5.5	6.5	10.5	9.0	9.5	19.5	17.5	18.5
9	1.0	0.0	0.5	7.5	5.5	7.0	10.0	8.0	9.0	18.0	16.5	17.0
10	2.0	0.0	1.0	8.5	6.0	7.5	11.5	8.5	9.5	17.5	16.0	16.5
11	2.0	0.5	1.0	9.0	6.5	7.5	12.0	9.0	10.5	18.0	16.0	17.0
12	2.0	1.0	1.0	9.0	7.0	8.0	14.0	10.0	11.5	19.0	16.5	17.5
13	2.0	1.0	1.5	9.5	8.0	8.5	14.0	11.0	12.5	19.5	17.5	18.5
14	3.0	1.5	2.0	10.0	8.5	9.0	13.5	12.0	12.5	19.5	18.0	18.5
15	4.0	1.5	2.5	11.0	9.5	10.0	14.0	11.5	12.5	19.5	18.0	18.5
16	2.5	1.5	2.0	10.5	10.0	10.5	14.0	12.0	13.0	20.5	18.0	19.0
17	4.0	1.5	2.0	11.0	9.0	10.0	14.5	12.5	13.5	21.0	18.5	20.0
18	3.0	1.5	2.0	9.5	8.5	9.0	15.0	12.5	14.0	22.0	19.5	20.5
19	3.5	1.5	2.0	9.0	8.0	8.5	15.5	13.5	14.5	22.0	20.0	21.0
20	3.0	2.0	2.5	8.5	8.0	8.0	16.0	14.0	15.0	22.0	20.0	21.5
21	3.5	1.5	2.5	9.5	8.0	8.5	17.0	14.5	16.0	23.0	21.0	22.0
22	3.5	1.5	2.5	9.0	8.0	8.5	18.0	15.0	16.5	24.0	21.5	22.5
23	4.5	2.5	3.5	9.0	7.0	8.0	19.0	16.0	17.5	24.5	22.0	23.0
24	4.5	2.5	3.5	8.0	6.5	7.5	18.5	16.5	17.0	24.5	22.5	23.5
25	6.0	3.5	5.0	8.0	6.0	7.0	18.5	16.5	17.5	24.5	23.0	23.5
26	6.5	4.5	5.5	7.5	6.0	7.0	17.5	16.5	17.0	26.0	23.0	24.0
27	7.0	5.0	6.0	8.0	6.5	7.0	18.0	16.5	17.0	25.5	23.0	24.0
28	7.0	5.5	6.0	8.5	7.0	7.5	18.0	17.0	17.5	26.0	23.5	24.5
29	---	---	---	10.0	7.5	9.0	18.0	16.0	17.0	25.0	23.5	24.5
30	---	---	---	11.0	8.5	9.5	18.5	16.5	17.5	24.0	23.5	23.5
31	---	---	---	11.0	9.0	10.0	---	---	---	24.5	23.0	23.5
MONTH	7.0	0.0	2.0	11.0	4.5	8.0	19.0	8.0	13.5	26.0	16.0	20.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	24.5	23.0	23.5	28.0	26.5	27.0	29.5	28.0	28.5	30.0	28.0	29.0
2	25.0	23.0	24.0	28.0	26.5	27.5	29.5	28.0	29.0	30.0	28.5	29.0
3	24.5	23.5	24.0	28.0	26.5	27.5	29.0	28.5	28.5	30.0	28.5	29.0
4	24.5	23.0	24.0	28.0	26.5	27.5	30.0	28.5	29.0	29.5	28.5	29.0
5	24.5	23.5	24.0	29.0	27.0	28.0	31.0	28.5	29.5	29.5	28.5	29.0
6	24.0	23.0	23.5	30.0	27.5	28.5	30.5	29.5	30.0	30.0	28.5	29.0
7	23.5	22.0	22.5	29.0	28.0	28.5	31.0	29.5	30.0	29.0	28.0	28.5
8	23.0	21.5	22.0	30.0	28.0	28.5	31.0	29.5	30.0	28.5	27.5	28.0
9	22.0	21.5	21.5	29.5	28.5	29.0	31.5	30.0	30.5	28.0	27.0	27.5
10	21.5	21.0	21.5	29.5	28.5	29.0	31.5	30.0	30.5	28.0	26.5	27.5
11	22.0	20.5	21.5	29.5	28.0	28.5	31.5	29.5	30.5	27.0	26.0	26.5
12	23.0	21.5	22.0	30.0	28.0	28.5	31.0	30.0	30.5	27.0	25.5	26.0
13	23.5	21.5	22.5	30.5	28.5	29.0	30.5	30.0	30.5	26.5	25.5	26.0
14	24.0	22.0	23.0	30.5	29.0	29.5	30.0	29.5	29.5	26.0	25.0	25.5
15	24.0	22.5	23.5	31.0	29.0	30.0	30.5	29.0	29.5	25.5	24.5	25.0
16	25.0	23.0	24.0	31.5	29.0	30.5	30.5	29.5	30.0	25.0	24.5	24.5
17	25.0	23.0	24.0	31.5	29.5	31.0	30.5	29.5	30.0	25.5	24.5	25.0
18	25.5	23.5	24.5	32.0	30.0	31.0	29.5	28.5	29.0	26.0	24.5	25.0
19	26.0	24.0	25.0	32.5	30.5	31.5	29.5	28.0	28.5	26.5	25.0	25.5
20	26.5	24.5	25.5	32.0	31.0	31.5	29.0	27.5	28.0	26.0	24.5	25.5
21	26.0	24.5	25.5	33.0	31.0	32.0	28.5	27.0	28.0	25.5	24.5	25.0
22	26.5	24.5	25.5	32.0	31.0	31.5	28.0	27.0	27.5	25.0	24.0	24.5
23	26.5	24.5	25.5	31.5	30.0	30.5	28.5	27.0	27.5	24.5	24.0	24.5
24	27.0	25.0	25.5	31.0	30.0	30.0	28.5	27.5	28.0	25.0	24.0	24.5
25	26.0	25.5	25.5	30.0	29.0	29.5	28.0	26.5	27.5	24.0	22.5	23.0
26	27.0	25.5	26.0	30.0	28.5	29.0	28.5	26.5	27.5	24.0	22.5	23.5
27	28.0	25.5	26.5	29.5	28.0	29.0	28.5	27.0	27.5	24.0	23.0	23.5
28	27.5	26.0	26.5	29.5	28.0	28.5	29.0	27.0	28.0	23.5	22.5	23.0
29	28.0	26.0	27.0	29.5	28.0	28.5	29.0	27.5	28.5	23.0	22.0	22.5
30	28.0	26.5	27.0	29.0	28.0	28.5	29.5	28.0	29.0	23.0	22.0	22.5
31	---	---	---	29.5	28.0	28.5	29.5	28.5	29.0	---	---	---
MONTH	28.0	20.5	24.0	33.0	26.5	29.5	31.5	26.5	29.0	30.0	22.0	26.0

01477050 DELAWARE RIVER AT CHESTER, PA--Continued

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	9.0	8.1	8.6	7.8	6.8	7.2	8.1	7.7	7.9
2	---	---	---	8.9	8.4	8.6	7.9	7.3	7.6	8.7	8.1	8.5
3	---	---	---	8.6	8.2	8.4	8.2	7.7	7.9	8.9	8.5	8.7
4	---	---	---	8.3	7.9	8.1	8.2	7.6	7.8	9.4	9.0	9.2
5	4.4	3.0	3.6	8.3	7.8	8.0	7.9	7.4	7.6	9.4	8.9	9.2
6	3.9	2.1	2.9	8.6	8.0	8.3	7.7	7.2	7.4	9.3	8.9	9.1
7	2.8	1.8	2.2	8.6	8.1	8.3	8.5	7.2	7.8	9.2	8.8	9.1
8	2.3	1.4	1.8	8.5	8.0	8.3	7.9	7.4	7.6	9.2	9.0	9.1
9	4.3	1.4	2.9	8.5	8.2	8.4	8.3	7.2	7.6	9.1	8.9	9.0
10	4.1	3.3	3.7	9.1	8.4	8.7	8.3	7.4	7.9	9.0	8.8	8.9
11	4.6	3.7	4.2	9.1	8.7	8.9	8.5	7.3	7.6	9.0	8.8	8.9
12	5.5	4.2	4.7	9.0	8.4	8.7	7.3	6.7	7.0	9.9	8.7	9.1
13	6.2	4.9	5.6	9.0	8.5	8.6	8.2	6.8	7.5	9.9	9.5	9.7
14	7.1	6.0	6.6	9.0	8.6	8.8	8.2	7.5	7.8	---	---	---
15	7.5	6.6	7.0	8.8	8.3	8.6	8.2	7.5	7.8	---	---	---
16	7.2	6.4	6.9	8.7	8.0	8.3	7.9	7.1	7.4	---	---	---
17	6.7	5.9	6.4	8.3	7.7	8.0	7.3	7.0	7.1	---	---	---
18	6.5	5.5	6.1	8.1	7.6	7.8	7.4	6.9	7.1	---	---	---
19	6.3	5.5	5.9	8.1	7.6	7.8	7.2	6.8	7.0	---	---	---
20	5.9	5.3	5.6	7.9	7.5	7.7	6.7	6.4	6.5	---	---	---
21	6.4	5.9	6.1	7.9	7.5	7.6	7.2	6.3	6.7	---	---	---
22	6.6	6.1	6.4	8.2	7.4	7.7	6.9	6.4	6.6	---	---	---
23	6.6	6.3	6.5	8.7	7.8	8.2	6.8	6.3	6.5	---	---	---
24	6.5	6.2	6.4	8.8	8.0	8.4	7.2	6.7	6.9	---	---	---
25	6.5	6.3	6.4	8.4	7.9	8.2	7.6	7.1	7.4	7.5	6.7	7.1
26	8.0	6.5	7.3	8.2	7.6	7.9	7.9	7.3	7.6	7.2	6.5	6.9
27	8.1	7.8	7.9	7.9	7.2	7.6	8.1	7.7	7.8	6.9	6.1	6.4
28	8.4	8.0	8.2	7.6	6.9	7.3	8.2	7.9	8.0	6.9	5.8	6.2
29	8.6	8.2	8.4	7.4	6.7	7.0	8.0	7.0	7.6	---	---	---
30	8.5	7.9	8.2	7.5	6.8	7.0	8.0	7.6	7.8	---	---	---
31	8.5	8.0	8.1	---	---	---	8.1	7.7	7.9	---	---	---
MONTH	8.6	1.4	5.8	9.1	6.7	8.1	8.5	6.3	7.4	9.9	5.8	8.4

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	8.0	7.0	7.5	8.8	8.1	8.4	3.9	2.8	3.1
2	6.1	5.4	5.7	8.4	7.7	8.1	8.4	7.6	8.0	4.2	3.1	3.5
3	6.5	5.2	5.7	8.0	7.6	7.8	8.3	7.4	7.6	4.2	3.4	3.7
4	5.8	4.9	5.4	7.9	7.5	7.6	7.9	7.3	7.6	3.7	3.2	3.4
5	6.0	4.7	5.4	7.9	7.4	7.6	8.5	7.6	8.0	3.4	3.0	3.2
6	6.0	5.2	5.6	8.7	7.4	8.1	9.4	8.1	8.9	3.5	2.8	3.0
7	5.9	5.2	5.6	9.3	8.3	8.8	9.5	9.1	9.3	3.1	2.5	2.8
8	5.7	4.9	5.4	9.4	9.0	9.2	9.4	8.8	9.1	3.2	2.3	2.7
9	5.7	4.7	5.2	9.4	8.9	9.1	9.3	8.8	9.0	4.4	2.7	3.5
10	5.3	4.3	4.8	9.0	8.5	8.8	8.9	8.4	8.7	5.1	3.9	4.5
11	5.4	4.0	4.5	8.7	8.1	8.4	8.7	8.3	8.5	5.3	4.5	4.9
12	6.3	3.7	4.3	8.3	7.8	8.1	8.4	7.8	8.2	5.2	4.4	4.8
13	5.5	3.6	4.3	8.1	7.6	7.8	8.2	7.7	7.9	5.1	4.2	4.7
14	5.4	3.6	4.3	8.0	7.4	7.7	7.9	7.2	7.5	5.4	4.0	4.7
15	4.6	3.4	4.0	8.7	8.0	8.2	7.7	6.9	7.1	5.3	3.8	4.5
16	4.8	3.7	4.1	8.5	8.2	8.4	7.1	6.3	6.6	5.4	3.5	4.4
17	4.9	3.9	4.4	8.9	8.5	8.7	6.5	5.8	6.1	5.5	3.8	4.6
18	4.9	4.1	4.5	9.0	8.5	8.8	6.3	5.3	5.6	5.1	3.6	4.4
19	5.0	4.1	4.6	9.1	8.7	8.9	5.6	4.7	5.1	5.5	3.5	4.5
20	5.3	4.0	4.6	8.9	8.3	8.7	5.1	4.3	4.6	5.2	3.4	4.3
21	5.6	4.5	5.0	8.7	8.1	8.4	4.7	3.8	4.2	5.1	3.3	4.1
22	5.7	4.8	5.2	9.1	8.1	8.4	4.3	3.6	4.0	4.5	3.2	3.8
23	5.4	4.8	5.1	9.8	9.0	9.6	4.1	3.3	3.7	3.8	2.8	3.3
24	6.1	4.7	5.3	10.3	9.5	9.9	4.2	3.4	3.8	3.0	2.1	2.7
25	6.3	5.4	5.8	10.3	9.8	10.1	3.9	3.0	3.6	2.2	1.5	1.9
26	6.8	5.8	6.2	10.3	9.8	10.0	3.9	2.7	3.2	1.6	1.1	1.4
27	6.3	5.7	6.0	9.9	9.3	9.6	2.9	2.0	2.4	1.1	0.8	1.0
28	7.5	6.0	6.8	9.3	8.8	9.1	2.8	2.0	2.3	1.1	0.4	0.7
29	---	---	---	9.0	8.6	8.7	3.6	2.3	2.8	1.6	0.4	1.0
30	---	---	---	8.7	8.2	8.5	3.7	2.8	3.1	1.5	0.9	1.1
31	---	---	---	8.9	7.8	8.4	---	---	---	1.1	0.5	0.7
MONTH	7.5	3.4	5.1	10.3	7.0	8.6	9.5	2.0	6.2	5.5	0.4	3.3

01477050 DELAWARE RIVER AT CHESTER, PA--Continued

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	1.1	0.3	0.5	0.9	0.2	0.5	1.7	0.7	1.1	1.3	0.4	0.9
2	1.0	0.3	0.4	0.8	0.2	0.4	1.4	0.5	0.9	1.4	0.4	0.8
3	1.5	0.2	0.8	0.6	0.2	0.4	1.1	0.4	0.7	1.3	0.4	0.7
4	1.5	1.0	1.3	0.6	0.2	0.4	1.4	0.4	0.8	1.5	0.4	0.8
5	1.5	1.0	1.1	0.5	0.1	0.2	1.9	0.5	0.9	1.6	0.5	0.9
6	1.5	0.8	1.1	0.5	.0	0.2	1.7	0.5	1.0	1.6	0.7	1.0
7	2.0	1.0	1.4	0.3	.0	0.1	2.3	0.5	1.1	2.1	0.7	1.1
8	2.5	1.3	1.9	0.5	.0	0.2	2.4	1.0	1.4	1.9	0.7	1.1
9	2.6	1.7	2.2	0.5	.0	0.2	2.1	1.1	1.5	2.2	0.9	1.5
10	2.7	1.9	2.3	1.5	0.1	0.4	1.6	0.8	1.1	2.3	1.4	1.6
11	3.0	2.1	2.5	1.7	0.3	0.7	1.8	0.8	1.1	1.9	0.9	1.4
12	2.8	2.2	2.4	2.0	0.4	0.9	1.8	0.8	1.1	2.2	1.0	1.5
13	2.6	1.6	2.0	1.5	0.7	1.1	1.4	0.7	1.0	2.7	1.0	1.9
14	2.1	1.3	1.6	1.3	0.3	0.7	1.4	0.7	1.1	3.2	1.9	2.6
15	1.8	1.0	1.3	0.6	0.1	0.3	1.7	0.6	1.0	2.8	1.5	2.0
16	1.3	0.6	1.0	0.7	0.1	0.3	1.6	0.4	1.0	2.9	1.3	2.0
17	1.6	0.6	1.0	0.7	0.1	0.4	1.4	0.8	1.1	2.8	1.1	1.9
18	1.6	0.8	1.0	0.6	0.2	0.3	1.3	0.5	0.8	2.1	1.0	1.5
19	1.5	0.5	1.0	1.3	0.1	0.5	1.4	0.4	0.9	1.9	1.0	1.4
20	1.5	0.6	1.0	1.1	0.1	0.3	1.4	0.4	0.8	2.4	0.9	1.1
21	1.5	0.5	1.0	1.8	0.1	0.4	1.7	0.2	0.9	1.5	0.9	1.1
22	1.5	0.4	0.9	2.1	0.3	0.9	2.4	1.1	1.5	1.4	0.9	1.1
23	1.5	0.4	0.8	2.1	0.9	1.4	1.4	0.6	1.0	1.5	0.8	0.9
24	1.7	0.4	0.8	3.4	1.3	2.2	0.9	0.5	0.6	1.1	0.6	0.8
25	1.5	0.4	0.8	3.6	2.2	2.7	1.5	0.5	0.8	2.2	1.0	1.6
26	1.0	0.2	0.5	2.8	1.6	2.1	1.6	0.5	0.9	2.2	1.6	1.8
27	1.1	0.2	0.4	2.6	1.1	1.9	1.8	0.5	1.0	1.8	1.3	1.5
28	1.3	0.2	0.4	2.4	1.1	1.6	1.6	0.7	1.1	1.4	0.8	1.1
29	1.1	0.3	0.8	2.5	0.8	1.4	1.6	0.6	1.0	2.2	1.0	1.5
30	1.1	0.2	0.6	2.0	0.6	1.1	1.3	0.7	0.9	2.6	1.5	2.1
31	---	---	---	1.7	0.5	1.1	1.6	0.5	1.0	---	---	---
MONTH	3.0	0.2	1.2	3.6	.0	0.8	2.4	0.2	1.0	3.2	0.4	1.4

01477200 DELAWARE RIVER AT MARCUS HOOK, PA

LOCATION.--Lat 39°48'01", long 75°25'10", Delaware County, Hydrologic Unit 02040202, at center of river on a line from the water end of the Maritime Exchange reporting station pier through channel station +128.7 to vertical lift bridge over Oldmans Creek.

DRAINAGE AREA.--10,400 mi² (26,900 km²).

PERIOD OF RECORD.--August 1949 to May 1969, October 1969 to September 1972, December 1973 to current year.

REMARKS.--Samples collected about 5 to 15 ft (2 to 5 m) from bottom. Further information on this station is given in U.S. Geological Survey Water-Supply Paper 1809-O.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE (DEG C)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)
OCT 07...	0835	402	19.0	110	79	29	10	33	4.0	42	34	73
NOV 04...	0910	171	10.0	55	39	15	4.3	9.5	2.5	20	16	33
DEC 02...	0915	256	5.0	74	44	19	6.5	21	2.7	37	30	44
JAN 06...	0940	280	.5	79	47	20	7.0	19	2.6	39	32	47
FEB 17...	0830	531	1.0	87	48	33	1.1	55	4.1	48	39	78
MAR 03...	0930	271	5.0	70	34	18	6.0	19	2.9	43	35	41
APR 14...	0915	150	10.0	56	38	16	4.0	7.7	1.6	22	18	24
MAY 12...	0910	208	17.0	66	43	17	5.8	13	2.1	29	24	35
JUN 02...	0830	258	21.5	75	44	18	7.3	19	2.6	38	31	44
JUL 07...	0845	2180	27.0	230	260	37	41	330	14	35	29	120
AUG 04...	0820	1780	27.5	190	240	37	35	230	13	54	44	110
SEP 08...	0845	1850	27.0	230	190	34	35	280	14	49	40	120

DATE	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED NITRATE (N) (MG/L)	DISSOLVED NITRITE (N) (MG/L)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED ORTHO. PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
OCT 07...	52	.2	2.3	231	235	2.0	.18	2.2	.11	50	210
NOV 04...	14	.1	5.7	100	99	.89	.03	.92	.10	520	140
DEC 02...	29	.1	6.3	150	154	1.5	.03	1.5	.04	180	230
JAN 06...	29	.2	5.9	165	157	1.4	.06	1.5	.08	280	190
FEB 17...	88	.3	6.3	320	297	1.5	.13	1.6	.04	160	350
MAR 03...	29	.2	4.5	174	149	1.4	.07	1.5	.05	350	210
APR 14...	12	.1	5.1	91	87	1.1	.03	1.1	.03	150	110
MAY 12...	17	.1	2.5	124	113	1.3	.15	1.4	.03	40	70
JUN 02...	26	.1	.2	168	143	1.4	.09	1.5	.00	60	80
JUL 07...	580	.2	.9	1250	1150	2.7	.12	2.8	.07	40	260
AUG 04...	440	.3	.7	969	905	2.6	.10	2.7	.06	40	110
SEP 08...	480	.3	1.0	1070	1000	2.5	.07	2.6	.06	30	200

01480000 RED CLAY CREEK AT WOODDALE, DE

LOCATION.--Lat 39°45'52", long 75°38'08", New Castle County, Hydrologic Unit 02040205, on right bank 12 ft (4 m) upstream from bridge on State Highway 48, 0.3 mi (0.5 km) south of Wooddale, 2.3 mi (3.7 km) north of Marshallton, and 4.9 mi (7.9 km) upstream from mouth.

DRAINAGE AREA.--47.0 mi^2 (121.7 km^2).

PERIOD OF RECORD.--April 1943 to current year.

REVISED RECORDS.--WSP 1141: 1948. WSP 1272: 1951(m). WSP 1432: 1944(M), 1945, 1946(M), 1948, 1949(M). WSP 2102: 1960(M), 1964(M), 1966-67(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 81.46 ft (24.829 m) above mean sea level. Prior to Sept. 21, 1950, nonrecording gage at site 10 ft (3 m) downstream at same datum.

REMARKS.--Water-discharge records good except those for winter period, which are fair. Some diurnal fluctuation at low flow caused by mills above station.

AVERAGE DISCHARGE.--34 years, 63.7 ft^3/s (1.804 m^3/s), 18.41 in/yr (468 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,010 ft^3/s (142 m^3/s) July 21, 1975, gage height, 10.32 ft (3.146 m); minimum, 2.9 ft^3/s (0.082 m^3/s) Sept. 4, 1966; minimum daily, 4.5 ft^3/s (0.13 m^3/s) Sept. 4, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,200 ft^3/s (34 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 11	2230	1300	36.8	5.01	1.527	Mar. 22	1600	*1710	48.4	5.58	1.701
Feb. 24	2330	1510	42.8	5.31	1.618						

Minimum discharge, 3.8 ft^3/s (0.11 m^3/s) July 30, gage height, 2.18 ft (0.664 m), result of regulation; minimum daily, 12 ft^3/s (0.34 m^3/s) Aug. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	57	26	19	16	40	48	46	40	29	16	111
2	30	41	27	20	16	37	154	45	99	26	16	30
3	65	38	25	20	17	35	114	45	33	23	17	23
4	36	37	25	25	20	71	74	43	27	22	18	21
5	27	34	24	25	20	83	445	51	27	23	15	21
6	26	32	24	20	17	50	146	71	32	23	13	26
7	24	31	162	22	15	43	94	71	34	38	14	61
8	24	30	67	22	15	39	82	45	27	27	12	21
9	111	29	37	21	17	37	70	41	71	23	19	19
10	46	29	35	120	20	36	67	40	127	22	24	19
11	27	29	34	90	250	35	64	38	40	21	42	16
12	24	28	34	30	340	34	64	38	31	27	21	14
13	23	28	32	20	200	187	59	36	29	23	20	15
14	21	28	28	21	70	175	58	34	28	22	37	15
15	20	27	29	22	40	68	55	33	33	17	25	14
16	20	28	30	19	31	54	54	33	29	18	19	14
17	20	27	30	17	25	46	53	33	27	17	36	19
18	22	27	27	17	24	90	51	35	38	17	39	18
19	20	26	26	18	25	65	51	33	27	17	19	21
20	106	26	28	20	27	50	51	34	24	19	16	91
21	168	25	38	20	22	49	50	32	25	16	15	25
22	44	25	26	19	20	485	49	29	22	14	56	21
23	35	25	27	18	24	170	48	30	22	13	22	20
24	33	25	23	17	200	88	50	30	22	15	23	21
25	46	25	24	17	240	70	71	30	22	13	34	51
26	89	26	22	19	57	63	86	30	40	31	19	29
27	43	26	21	18	47	59	56	27	24	16	17	24
28	36	25	23	17	49	58	52	26	74	14	16	31
29	33	38	22	19	---	57	65	25	204	17	15	22
30	31	33	21	17	---	55	49	25	37	14	15	19
31	165	---	19	16	---	51	---	27	---	16	60	---
TOTAL	1478	905	1016	785	1864	2480	2430	1156	1315	633	730	852
MEAN	47.7	30.2	32.8	25.3	66.6	80.0	81.0	37.3	43.8	20.4	23.5	28.4
MAX	168	57	162	120	340	485	445	71	204	38	60	111
MIN	20	25	19	16	15	34	48	25	22	13	12	14
CFSM	1.02	.64	.70	.54	1.42	1.70	1.72	.79	.93	.43	.50	.60
IN.	1.17	.72	.80	.62	1.48	1.96	1.92	.91	1.04	.50	.58	.67

CAL YR 1976 TOTAL 19707 MEAN 53.8 MAX 591 MIN 16 CFSM 1.15 IN 15.60
WTR YR 1977 TOTAL 15644 MEAN 42.9 MAX 485 MIN 12 CFSM .91 IN 12.38

RESERVOIR IN CHRISTINA RIVER BASIN

01480684 MARSH CREEK RESERVOIR.--Lat 40°03'24", long 75°43'06", Chester County, Hydrologic Unit 02040205, on right bank at dam on Marsh Creek, 0.3 mi (0.5 km) upstream from mouth and 3.2 mi (5.1 km) north of Downingtown. DRAINAGE AREA, 20.1 mi² (52.1 km²). PERIOD OF RECORD, November 1973 to current year. GAGE, water-stage recorder. Datum of gage is at mean sea level (levels by Pennsylvania Department of Environmental Resources).

Reservoir formed by earthfill dam with concrete spillway at elevation 359.5 ft (109.58 m). Storage began November 1973. Total capacity 22,190 acre-ft (27.4 hm³) at elevation 373 ft (113.69 m). Reservoir is used for water supply, flood control and recreation. Figures given herein represent contents above lowest gate sill at elevation 289.5 ft (88.240 m). Records furnished by Pennsylvania Department of Environmental Resources.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 15,560 acre-ft (19.2 hm³) Apr. 8, 1977 (elevation, 362.00 ft or 110.338 m), minimum, (after first filling), 10,410 acre-ft (12.8 hm³) Mar. 3, 1976 (elevation, 351.75 ft or 107.213 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 15,560 acre-ft (19.2 hm³) Apr. 8 (elevation, 362.00 ft or 110.338 m); minimum, 14,270 acre-ft (17.6 hm³) July 20, 30, 31, Aug. 1 (elevation, 359.65 ft or 109.621 m).

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in cfs)	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in cfs)
	01480684 Marsh Creek Reservoir					
Sept. 30	359.95	14,430	--			
Oct. 31	360.45	14,710	+ 4.6			
Nov. 30	360.10	14,520	- 3.2			
Dec. 31	360.02	14,470	- .8			
CAL YR 1976	--	--	+ 1.5			
Jan. 31	359.97	14,440	- .5			
Feb. 28	360.61	14,800	+ 6.5			
Mar. 31	359.97	14,440	- 5.9			
Apr. 30	360.11	14,520	+ 1.3			
May 31	359.70	14,300	- 3.6			
June 30	259.85	14,380	+ 1.3			
July 31	359.65	14,270	- 1.8			
Aug. 31	360.11	14,520	+ 4.1			
Sept. 30	360.13	14,530	+ 0.2			
WTR YR 1977	--	--	+ 0.1			

01480300 WEST BRANCH BRANDYWINE CREEK NEAR HONEY BROOK, PA

LOCATION.--Lat 40°04'22", long 75°51'40", Chester County, Hydrologic Unit 02040205, at right upstream end of bridge on Legislative Route 15185, at Birdell, 0.4 mi (0.6 km) downstream from Two Log Run, and 3.0 mi (4.8 km) southeast of Honey Brook.

DRAINAGE AREA.--18.7 mi^2 (48.4 km^2).

PERIOD OF RECORD.--June 1960 to current year.

REVISED RECORDS.--WDR PA-73: 1972(P).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 591.20 ft (180.198 m) above mean sea level.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--17 years, 24.2 ft^3/s (0.685 m^3/s), 17.56 in/yr (446 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,140 ft^3/s (231 m^3/s) June 22, 1972, gage height, 11.41 ft (3.478 m), from rating curve extended above 1,900 ft^3/s (53.8 m^3/s) on basis of slope-area measurement of peak flow; minimum, 1.7 ft^3/s (0.048 m^3/s) Aug. 15, 16, 17, 18, 19, 1963; minimum gage height, 1.07 ft (0.326 m) Feb. 21, 22, 1977, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft^3/s (14.2 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Oct. 9	1130	575	16.3	5.95	1.814	Mar. 14	0130	*815	23.1	*6.75	2.057
Oct. 21	0130	713	20.2	6.41	1.954	Mar. 22	Unknown	450	12.7	5.50	1.676
Feb. 25	0045	557	15.8	5.89	1.795	Apr. 5	0600	563	15.9	5.91	1.801

Minimum discharge, 4.0 ft^3/s (0.11 m^3/s) Feb. 21, 22, gage height, 1.07 ft (0.326 m), result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	32	17	14	14	23	22	21	14	11	9.8	104
2	18	26	18	13	13	21	86	20	32	9.8	14	24
3	175	25	16	13	14	20	60	20	13	9.4	13	30
4	32	26	16	12	14	83	35	20	12	9.4	10	12
5	21	24	16	12	14	75	353	27	12	9.8	7.8	11
6	20	23	16	12	13	28	67	24	15	11	7.8	10
7	19	22	164	13	14	25	36	20	15	18	7.4	9.8
8	19	22	34	16	13	22	33	18	13	9.4	7.0	9.0
9	303	21	23	14	15	21	30	18	18	8.2	6.6	9.0
10	41	21	21	19	12	21	30	18	22	7.8	47	8.6
11	26	21	22	25	30	20	28	17	14	7.4	44	8.2
12	23	20	22	20	65	20	27	17	13	7.4	10	7.8
13	22	20	20	18	96	97	26	16	12	7.4	13	7.8
14	21	20	18	18	39	200	25	16	13	7.0	18	7.8
15	19	19	19	17	27	39	24	15	16	6.2	13	7.8
16	19	19	19	17	20	29	24	15	13	6.2	9.0	7.8
17	18	19	19	16	17	26	23	15	12	6.2	9.8	10
18	18	19	18	15	16	35	22	15	13	6.2	11	8.0
19	18	19	17	15	16	32	22	17	20	5.8	8.6	7.5
20	87	18	20	14	17	27	22	16	12	6.2	7.8	70
21	227	18	25	15	15	33	21	15	13	5.8	7.0	20
22	30	18	16	14	17	250	21	14	11	5.4	15	15
23	25	17	15	14	21	150	21	14	11	5.0	9.0	13
24	27	17	15	14	76	38	25	13	10	5.4	8.2	12
25	36	18	15	14	164	30	38	13	11	7.4	9.0	48
26	81	18	18	14	30	28	31	13	45	8.6	7.4	25
27	28	18	18	14	27	27	25	13	13	6.6	7.4	20
28	25	18	17	13	30	28	23	13	17	5.8	7.0	25
29	24	27	17	13	---	28	27	12	17	5.8	7.0	14
30	24	19	15	14	---	26	22	12	11	6.2	6.6	13
31	102	---	14	14	---	24	---	13	---	6.2	83	---
TOTAL	1578	624	720	466	859	1526	1249	510	463	238.0	441.2	567.1
MEAN	50.9	20.8	23.2	15.0	30.7	49.2	41.6	16.5	15.4	7.68	14.2	18.9
MAX	303	32	164	25	164	250	353	27	45	18	83	104
MIN	18	17	14	12	12	20	21	12	10	5.0	6.6	7.5
CFSM	2.72	1.11	1.24	.80	1.64	2.63	2.23	.88	.82	.41	.76	1.01
IN.	3.14	1.24	1.43	.93	1.71	3.04	2.48	1.01	.92	.47	.88	1.13

CAL YR 1976 TOTAL 10614.4 MEAN 29.0 MAX 406 MIN 8.6 CFSM 1.55 IN 21.12
WTR YR 1977 TOTAL 9241.3 MEAN 25.3 MAX 353 MIN 5.0 CFSM 1.35 IN 18.38

01480500 WEST BRANCH BRANDYWINE CREEK AT COATESVILLE,PA

LOCATION.--Lat 39°59'08", long 75°49'40", Chester County, Hydrologic Unit 02040205, on right bank at city limits of Coatesville, 1,200 ft (366 m) upstream from bridge on old Lincoln Highway, and 0.6 mi (1.0 km) downstream from Rock Run.

DRAINAGE AREA.--45.8 mi² (118.6 km²).

PERIOD OF PERIOD.--October 1943 to December 1951, January 1970 to current year.

GAGE.--Water-stage recorder and V-notch sharp crested weir. Altitude of gage is 305 ft (93.0 m), from topographic map. Sept. 10, 1943 to Dec. 31, 1951, nonrecording gage at site 1,100 ft (335 m) downstream at different datum.

REMARKS.--Records good except those for winter periods, which are fair. Diversion above station from Rock Run Reservoir, capacity, 320 mil gal (1.211 hm³) 2.6 mi (4.2 km) upstream, for municipal supply of city of Coatesville.

AVERAGE DISCHARGE.--15 years (1943-51, 1970-77), 71.8 ft³/s (2.03 m³/s), 21.30 in/yr (541 mm/yr), adjusted for storage and diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,100 ft³/s (229 m³/s) June 29, 1973, gage height, 10.08 ft (3.072 m), from rating curve extended above 2,200 ft³/s (62.3 m³/s) on basis of slope-area measurement at gage height 9.92 ft (3.024 m); minimum observed, 4.6 ft³/s (0.13 m³/s) Sept. 10, 1944, gage height, 0.70 ft (0.213 m), site and datum then in use; minimum daily, 9.6 ft³/s (0.27 m³/s) Sept. 12, 1949.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 9, 1942 reached a stage of 12.3 ft (3.75 m), site and datum then in use, discharge, 8,600 ft³/s (244 m³/s), by slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 700 ft³/s (19.8 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Oct. 9	1430	746	21.1	5.58	1.701
Oct. 20	2215	878	24.9	5.76	1.756
Mar. 14	0700	725	20.5	5.55	1.692
Mar. 22	1545	*1,260	35.7	*6.19	1.887
Apr. 5	0400	1,250	35.4	6.18	1.884

Minimum discharge, 9.7 ft³/s (0.27 m³/s) July 24, gage height, 3.43 ft (1.045 m); minimum daily, 11 ft³/s (0.31 m³/s) July 23, 24, 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	92	33	27	26	43	45	43	34	21	14	183
2	39	65	34	26	25	37	145	43	89	19	31	33
3	262	61	28	26	26	34	162	43	31	17	26	47
4	87	63	32	25	27	116	84	40	24	16	26	25
5	43	53	31	25	29	176	760	64	23	17	16	18
6	39	51	31	28	26	64	206	61	27	17	22	18
7	37	45	270	32	26	47	110	45	31	31	19	17
8	35	45	117	31	24	40	92	39	25	26	15	16
9	460	43	48	35	24	37	81	37	33	19	13	15
10	135	43	44	67	26	35	75	35	55	17	17	15
11	61	40	45	45	47	34	72	34	31	16	78	14
12	45	40	48	35	142	34	67	33	26	16	22	13
13	43	40	44	31	194	186	62	33	25	16	21	13
14	43	40	34	32	119	341	61	31	23	15	31	13
15	40	40	36	34	70	84	59	31	31	14	32	13
16	39	39	36	32	43	62	55	31	26	14	20	13
17	37	39	36	30	31	47	52	31	23	14	27	23
18	37	39	35	29	31	72	50	31	23	14	31	19
19	35	37	34	28	31	70	50	33	29	13	18	15
20	185	37	38	30	32	52	47	31	23	12	15	155
21	387	37	61	30	30	62	47	31	23	13	14	31
22	79	37	35	30	27	500	45	29	20	12	50	31
23	57	35	35	27	34	328	43	28	18	11	25	26
24	53	34	31	29	152	95	61	26	17	11	21	23
25	79	35	31	31	302	72	104	24	17	17	22	84
26	155	35	34	31	75	64	81	24	89	19	17	50
27	72	37	34	30	59	61	61	23	28	14	14	34
28	57	37	34	29	64	61	52	22	50	12	14	50
29	53	67	34	26	---	61	62	21	55	11	12	29
30	48	45	30	27	---	55	47	21	26	12	13	23
31	197	---	28	26	---	52	---	22	---	12	52	---
TOTAL	3002	1351	1441	964	1742	3022	2938	1040	975	488	748	1059
MEAN	96.8	45.0	46.5	31.1	62.2	97.5	97.9	33.5	32.5	15.7	24.1	35.3
MAX	460	92	270	67	302	500	760	64	89	31	78	183
MIN	35	34	28	25	24	34	43	21	17	11	12	13
(/)	3.99	4.69	4.49	4.64	4.86	4.45	4.75	4.48	4.99	4.28	3.79	4.63
MEAN≠	101	49.7	51.0	35.7	67.1	102	103	38.0	37.5	20.0	27.9	39.9
CFSM≠	2.20	1.08	1.11	.78	1.46	2.23	2.25	.83	.82	.44	.61	.87
IN.≠	2.54	1.20	1.28	.90	1.52	2.57	2.51	.96	.92	.51	.70	.97

CAL YR 1976 TOTAL 23497 MEAN 64.2 MAX 747 MIN 19 MEAN≠ 68.1 CFSM≠ 1.49 IN.≠ 20.23
WTR YR 1977 TOTAL 18770 MEAN 51.4 MAX 760 MIN 11 MEAN≠ 55.9 CFSM≠ 1.22 IN.≠ 16.58

/ Diversion for municipal supply and change in contents in Rock Run Reservoir, equivalent in cubic feet per second, furnished by City of Coatesville.

≠ Adjusted for diversion and change of contents in Rock Run Reservoir.

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA

LOCATION.--Lat 39°57'42", long 75°48'06", Chester County, Hydrologic Unit 02040205, on left bank at bridge on Legislative Route 15068 at Modena and 300 ft (91 m) upstream from Dennis Run.
DRAINAGE AREA.--55.0 mi² (142.4 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1970 to current year.
REVISED RECORDS.--WDR PA-74: 1971-72(P), 1973. WDR PA-75-1: 1974(m).
GAGE.--Water-stage recorder. Altitude of gage is 265 ft (80.8 m), from topographic map.
REMARKS.--Records good except those for winter periods, which are fair. Flow regulated by Rock Run Reservoir, capacity, 320 mil gal (1.211 hm³) 5.6 mi (9.0 km) upstream and by Lukens Steel Company.
AVERAGE DISCHARGE.--7 years, 100 ft³/s (2.83 m³/s), 24.75 in/yr (629 mm/yr), adjusted for storage.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,600 ft³/s (272 m³/s) June 29, 1973, gage height, 12.47 ft (3.801 m), from rating curve extended above 920 ft³/s (26.1 m³/s) on basis of slope-area measurement at gage height 11.48 ft (3.499 m); minimum, 1.8 ft³/s (0.051 m³/s) Aug. 29, 1974; minimum gage height, 2.27 ft (0.692 m) Oct. 14, 1970.
EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 840 ft³/s (23.8 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Oct. 9	Unknown	1,100	31.2	5.39	1.643	Mar. 22	1615	*1,710	48.4	*6.21	1.893
Oct. 20	2230	1,380	39.1	5.78	1.762	Apr. 5	0445	1,610	45.6	6.09	1.856

Minimum discharge, 8.0 ft³/s (0.23 m³/s) July 29, gage height, 2.38 ft (0.725 m); minimum daily, 26 ft³/s (0.74 m³/s) Aug. 29.
CORRECTION.--The maximum discharge for water year 1976 is 2,260 ft³/s (64.0 m³/s), July 11, 1976, gage height, 6.87 ft (2.094 m); the previously published date was incorrect.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	76	134	58	46	39	72	68	66	97	38	66	250
2	58	103	60	45	40	70	147	72	120	35	57	50
3	360	101	52	45	39	66	193	68	58	33	60	62
4	113	103	55	45	40	101	103	60	40	28	66	62
5	66	94	54	44	42	201	878	86	42	34	33	35
6	60	92	55	42	40	97	270	78	45	33	33	36
7	55	88	287	48	41	80	150	68	48	47	26	33
8	54	86	139	41	40	74	131	58	42	41	31	32
9	600	79	63	45	37	70	116	60	80	35	29	31
10	200	72	60	70	42	66	109	55	82	34	42	30
11	100	70	58	60	60	66	103	53	50	29	101	29
12	70	68	63	51	126	64	99	53	44	33	41	28
13	60	68	60	48	199	243	92	52	41	30	37	27
14	56	66	48	46	134	378	93	48	42	31	58	27
15	54	65	54	48	82	116	84	47	47	28	96	27
16	55	65	54	46	60	92	82	47	44	28	37	27
17	54	63	54	46	49	82	80	47	41	29	57	50
18	55	65	52	45	46	105	76	55	38	28	52	33
19	52	65	51	45	48	103	76	52	48	29	33	31
20	287	63	57	44	51	82	76	47	41	27	30	160
21	533	60	68	44	45	86	76	46	37	30	27	58
22	118	63	51	40	46	580	68	45	38	30	118	67
23	88	58	54	41	51	499	68	42	30	27	66	42
24	90	58	48	42	202	177	82	42	34	28	42	38
25	118	60	48	42	320	109	135	44	33	41	40	120
26	202	61	52	44	105	95	109	42	118	30	33	68
27	115	61	49	44	78	90	86	37	45	30	29	68
28	96	60	52	42	84	88	82	41	86	27	28	76
29	94	82	49	42	---	88	88	35	82	27	26	66
30	90	72	48	41	---	82	72	38	45	29	27	68
31	264	---	48	39	---	78	---	41	---	30	70	---
TOTAL	4293	2245	2001	1411	2186	4200	3889	1623	1630	988	1371	1626
MEAN	138	74.8	64.5	45.5	78.1	135	130	52.4	54.3	31.9	44.2	54.2
MAX	600	134	287	70	320	580	878	86	120	47	118	250
MIN	52	58	48	39	37	64	68	35	30	27	26	27
(/)	-.55	+.05	-.15	+.25	-.06	-.14	+.11	-.35	+.50	+.52	-.69	+.78
MEAN≠	137	74.8	64.4	45.8	78.0	135	130	52.0	54.8	32.4	43.5	55.0
CFSM≠	2.49	1.36	1.17	.83	1.42	2.45	2.36	.95	1.00	.59	.79	1.00
IN.≠	2.87	1.52	1.35	.96	1.48	2.82	2.63	1.10	1.12	.68	.91	1.12

CAL YR 1976 TOTAL 33536 MEAN 91.6 MAX 1180 MIN 22 MEAN≠ 91.5 CFSM≠ 1.66 IN.≠ 22.56
WTR YR 1977 TOTAL 27463 MEAN 75.2 MAX 878 MIN 26 MEAN≠ 75.3 CFSM≠ 1.37 IN.≠ 18.56

/ Change in contents in Rock Run Reservoir, equivalent in cubic feet per second, furnished by City of Coatesville

≠ Adjusted for change in contents in Rock Run Reservoir.

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1969 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: May 1971 to current year.
pH: May 1971 to current year.
WATER TEMPERATURES: May 1971 to current year.
DISSOLVED OXYGEN: May 1971 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 858 micromhos Jan. 10, 1977; minimum, 88 micromhos Nov. 30, 1976.
pH: Maximum, 10.0 Dec. 21, 1971; minimum, 6.3 April 3, 1975.
WATER TEMPERATURES: Maximum 33.5°C July 19, 1977; minimum, freezing point on many days during winter periods.
DISSOLVED OXYGEN: Maximum, 16.3 mg/L Dec. 30, 1976; minimum, 0.6 mg/L Nov. 1, 3, 1974.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 858 micromhos Jan. 10; minimum, 88 micromhos Nov. 30.
pH: Maximum, 9.3 Feb. 24; minimum, 6.8 June 2.
WATER TEMPERATURES: Maximum, 33.5°C July 19; minimum, freezing point Feb. 7.
DISSOLVED OXYGEN: Maximum, 16.3 mg/L Dec. 30; minimum, 2.8 mg/L July 20.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	278	186	239	249	221	237	122	99	108	230	205	218
2	304	241	279	251	199	228	118	100	109	236	200	210
3	207	153	211	197	168	178	136	107	119	266	207	225
4	270	206	237	210	155	175	134	104	118	264	211	231
5	305	257	278	176	135	149	132	106	112	261	210	234
6	330	269	290	160	129	139	---	---	---	269	219	241
7	366	281	303	147	130	136	---	---	---	336	199	245
8	309	282	295	135	116	123	---	---	---	281	205	238
9	303	157	195	128	113	120	241	183	202	251	201	219
10	241	176	219	141	113	125	218	183	199	858	202	458
11	286	238	259	146	117	128	236	195	210	275	213	234
12	286	259	273	131	116	123	237	204	215	283	209	230
13	326	267	288	151	108	126	215	183	201	249	215	228
14	314	277	290	139	110	117	242	200	215	380	214	235
15	305	282	293	133	109	118	230	188	209	565	215	322
16	357	278	301	131	108	118	222	193	209	307	223	241
17	334	287	299	137	109	120	229	198	214	249	215	226
18	307	278	291	140	111	123	255	187	217	243	203	219
19	314	284	298	134	111	122	233	190	206	258	208	228
20	317	158	258	139	112	124	601	194	243	318	214	249
21	219	154	186	129	110	116	237	171	196	288	210	245
22	254	220	235	121	107	111	275	189	219	312	225	265
23	282	247	261	116	104	110	269	209	233	267	215	236
24	289	246	267	117	101	108	252	207	225	314	225	244
25	282	228	246	111	102	107	250	213	227	823	230	382
26	254	193	223	118	99	108	420	214	256	337	260	287
27	275	243	255	129	110	115	514	209	239	269	227	254
28	309	262	282	122	112	118	277	194	224	337	219	264
29	274	253	265	120	95	107	230	190	213	285	231	255
30	285	255	267	107	88	97	248	199	225	292	235	256
31	270	176	211	---	---	---	256	203	223	293	216	243
MONTH	357	153	261	251	88	131	601	99	200	858	199	254

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	302	228	263	218	172	193	250	230	239	241	218	225
2	333	253	289	280	169	218	240	150	203	243	209	224
3	323	252	289	278	218	250	201	158	184	233	212	221
4	377	261	308	261	181	233	249	176	209	238	218	229
5	397	290	339	262	172	222	164	101	125	241	198	214
6	296	239	261	257	228	239	207	141	179	224	197	209
7	284	225	251	274	228	248	211	199	206	258	214	225
8	317	238	271	267	218	245	218	202	213	266	226	237
9	335	236	279	280	227	250	237	210	222	237	218	230
10	410	221	299	274	237	251	244	217	225	239	224	232
11	358	240	276	254	233	243	227	212	220	262	229	241
12	247	161	194	269	233	248	235	213	222	271	234	246
13	205	143	178	270	152	209	250	214	230	268	233	244
14	184	144	164	199	140	164	250	224	232	261	235	247
15	186	142	165	238	193	213	245	227	234	268	239	251
16	222	163	190	276	216	232	255	220	232	262	231	248
17	260	207	222	284	231	248	249	220	229	256	238	248
18	260	216	229	246	202	230	246	219	229	285	233	253
19	252	218	231	265	195	226	233	222	227	288	238	253
20	370	218	247	259	224	240	243	211	232	262	240	252
21	267	211	231	234	208	222	251	222	233	280	242	258
22	285	226	243	230	206	220	241	219	229	281	247	264
23	298	222	254	---	---	---	258	219	235	266	245	258
24	294	120	207	226	209	215	264	203	236	277	256	263
25	184	111	154	235	215	226	208	163	187	306	248	270
26	217	159	188	246	221	232	211	192	199	303	257	277
27	220	181	200	249	218	230	230	196	212	282	256	271
28	206	176	189	241	217	224	233	211	219	302	254	276
29	---	---	---	232	217	226	220	197	207	304	263	276
30	---	---	---	246	218	231	243	209	223	278	253	265
31	---	---	---	291	223	239	---	---	---	278	254	267
MONTH	410	111	236	291	140	229	264	101	216	306	197	248

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	286	126	263	307	278	295	335	197	311	212	130	171
2	267	172	209	346	287	310	305	242	263	266	214	243
3	292	257	271	328	288	305	295	176	261	280	202	241
4	298	264	279	325	293	303	284	236	256	293	268	276
5	304	269	283	349	305	325	327	285	304	294	278	284
6	285	243	270	336	286	312	316	143	273	305	273	286
7	276	240	257	341	258	289	313	251	280	342	276	306
8	305	256	277	309	263	280	338	305	317	324	290	307
9	300	125	267	366	279	305	352	313	333	321	304	315
10	252	211	230	354	277	311	350	206	310	345	297	315
11	299	246	270	316	289	304	284	184	239	351	305	319
12	318	274	294	348	292	317	309	262	284	333	309	320
13	---	---	---	371	285	311	306	263	292	329	305	316
14	---	---	---	390	315	340	288	180	254	338	312	326
15	---	---	---	341	288	315	283	235	258	328	300	318
16	---	---	---	354	294	322	309	273	295	342	309	326
17	294	272	288	372	307	330	313	177	279	379	146	288
18	300	267	281	340	299	321	285	229	257	313	274	288
19	329	242	275	345	317	332	322	283	299	332	290	307
20	288	258	275	361	315	335	341	305	321	318	144	185
21	298	273	285	365	304	337	328	304	312	271	195	232
22	317	275	295	379	287	326	309	108	223	280	230	254
23	342	296	316	394	295	324	325	254	287	282	253	268
24	320	284	300	382	288	324	326	193	296	350	266	293
25	347	287	312	316	208	289	335	280	302	356	122	220
26	334	132	204	312	256	276	335	296	321	247	217	236
27	298	241	270	387	288	330	343	309	325	471	198	273
28	301	162	256	450	338	357	350	301	321	302	217	232
29	262	179	222	370	321	351	402	310	344	427	249	308
30	294	271	284	355	292	336	351	310	330	389	291	321
31	---	---	---	332	298	317	341	160	298	---	---	---
MONTH	347	125	270	450	208	317	402	108	292	471	122	279

CHRISTINA RIVER BASIN

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA--Continued

PH (UNITS), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	8.1	7.5	7.6	7.7	7.5	7.6	8.1	7.6	7.8	7.9	7.5	7.7
2	8.2	7.5	7.7	7.9	7.5	7.7	8.0	7.6	7.7	7.8	7.5	7.7
3	8.1	7.5	7.6	7.9	7.6	7.7	8.0	7.6	7.8	7.8	7.5	7.6
4	7.8	7.5	7.6	8.0	7.5	7.7	8.1	7.6	7.7	7.8	7.4	7.6
5	7.9	7.4	7.6	8.0	7.7	7.8	8.1	7.6	7.7	7.9	7.4	7.6
6	8.0	7.4	7.6	8.0	7.6	7.8	8.0	7.5	7.7	7.9	7.6	7.7
7	8.4	7.5	7.7	8.1	7.6	7.8	8.1	7.2	7.4	7.9	7.5	7.6
8	8.0	7.4	7.6	8.2	7.6	7.8	7.5	7.3	7.4	7.8	7.6	7.6
9	8.0	7.2	7.4	8.2	7.7	7.9	7.6	7.2	7.5	7.8	7.4	7.6
10	7.7	7.4	7.5	8.2	7.7	7.9	7.6	7.5	7.5	8.5	7.5	7.7
11	7.8	7.5	7.6	8.1	7.6	7.8	7.6	7.4	7.5	7.8	7.5	7.6
12	7.9	7.5	7.7	8.3	7.7	7.9	7.6	7.4	7.5	7.8	7.5	7.6
13	8.1	7.5	7.7	8.3	7.7	7.9	7.7	7.4	7.6	7.8	7.5	7.6
14	8.1	7.5	7.7	8.3	7.7	7.9	7.7	7.5	7.6	7.7	7.5	7.6
15	8.1	7.5	7.7	8.2	7.6	7.9	7.7	7.4	7.5	7.8	7.4	7.6
16	8.3	7.5	7.8	8.5	7.6	7.9	7.6	7.3	7.4	7.7	7.4	7.5
17	8.0	7.5	7.7	8.2	7.6	7.8	7.7	7.4	7.5	7.8	7.5	7.6
18	8.2	7.6	7.8	8.4	7.6	7.8	7.7	7.4	7.5	7.7	7.5	7.5
19	8.2	7.6	7.8	8.3	7.6	7.8	7.7	7.4	7.5	7.8	7.4	7.6
20	7.8	7.2	7.5	8.4	7.6	7.9	7.6	7.3	7.4	7.8	7.5	7.6
21	7.5	7.2	7.3	8.4	7.6	7.9	7.8	7.4	7.6	7.7	7.4	7.5
22	7.7	7.5	7.6	8.4	7.6	7.9	7.7	7.5	7.5	7.7	7.4	7.5
23	7.8	7.5	7.7	8.4	7.7	7.9	7.7	7.5	7.5	7.7	7.4	7.5
24	7.7	7.5	7.6	8.3	7.7	7.9	7.7	7.5	7.6	7.7	7.4	7.5
25	7.7	7.5	7.6	8.4	7.6	7.9	7.8	7.3	7.6	7.8	7.4	7.6
26	7.7	7.4	7.6	8.4	7.6	7.8	7.7	7.4	7.6	7.8	7.4	7.6
27	7.8	7.6	7.7	8.4	7.5	7.8	7.8	7.5	7.6	7.8	7.4	7.6
28	7.8	7.6	7.7	8.4	7.5	7.8	7.7	7.5	7.5	7.8	7.5	7.6
29	7.9	7.6	7.7	8.0	7.4	7.6	7.8	7.4	7.6	7.9	7.5	7.7
30	7.9	7.6	7.7	8.2	7.6	7.8	7.9	7.3	7.6	7.9	7.5	7.6
31	7.6	7.4	7.5	---	---	---	7.9	7.5	7.6	7.8	7.5	7.6
MONTH	8.4	7.2	7.6	8.5	7.4	7.8	8.1	7.2	7.6	8.5	7.4	7.6

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	7.8	7.4	7.6	7.8	7.5	7.6	8.5	7.6	7.9	9.0	7.4	8.1
2	7.8	7.5	7.6	8.0	7.5	7.7	8.4	7.5	7.7	8.8	7.3	7.8
3	7.7	7.5	7.6	8.4	7.6	7.8	7.9	7.5	7.6	8.9	7.3	8.0
4	7.9	7.4	7.6	7.8	7.4	7.6	8.0	7.5	7.7	8.1	7.2	7.6
5	8.1	7.4	7.6	7.6	7.4	7.5	8.1	7.3	7.4	8.7	7.3	7.8
6	7.9	7.5	7.7	7.8	7.4	7.6	7.6	7.3	7.5	8.6	7.2	7.7
7	7.9	7.2	7.6	8.2	7.5	7.7	7.9	7.5	7.7	8.7	7.2	7.8
8	7.9	7.5	7.6	8.2	7.5	7.7	8.0	7.6	7.7	8.8	7.2	7.9
9	7.8	7.4	7.6	8.2	7.4	7.7	8.1	7.6	7.8	8.6	7.3	7.9
10	8.4	7.4	7.8	8.4	7.3	7.7	8.1	7.3	7.8	8.7	7.3	8.0
11	8.6	7.4	7.7	8.3	7.4	7.7	8.2	7.5	7.8	8.9	7.2	8.0
12	7.8	7.5	7.6	8.4	7.2	7.7	8.4	7.5	7.9	9.0	7.3	8.1
13	7.8	7.5	7.6	8.7	7.2	7.5	8.5	7.5	7.9	9.0	7.3	8.1
14	7.8	7.5	7.6	7.5	7.2	7.3	8.6	7.5	7.9	8.9	7.3	8.1
15	8.0	7.5	7.6	7.6	7.3	7.4	8.6	7.5	8.0	9.0	7.3	8.1
16	7.8	7.6	7.7	8.0	7.3	7.6	8.6	7.5	8.0	9.0	7.3	8.1
17	7.9	7.5	7.7	8.2	7.5	7.7	8.8	7.5	8.0	9.2	7.2	8.1
18	7.9	7.4	7.6	8.3	7.5	7.7	8.7	7.5	8.0	9.2	7.2	8.0
19	7.9	7.5	7.6	8.2	7.6	7.8	8.7	7.4	8.0	8.8	7.2	7.9
20	7.8	7.4	7.6	8.0	7.5	7.7	8.8	7.4	8.1	8.9	7.2	7.9
21	8.1	7.6	7.7	8.3	7.5	7.8	8.9	7.4	8.1	8.9	7.2	8.0
22	8.1	7.6	7.7	8.3	7.5	7.6	8.9	7.3	8.0	9.1	7.2	8.0
23	8.3	7.6	7.8	---	---	---	8.8	7.3	7.9	9.0	7.2	8.0
24	9.3	7.4	7.8	7.8	7.6	7.7	8.6	7.2	7.7	9.0	7.1	7.9
25	7.4	7.4	7.4	7.9	7.6	7.7	8.4	7.3	7.7	8.6	7.1	7.7
26	7.6	7.4	7.5	7.9	7.6	7.8	7.9	7.2	7.4	9.0	7.3	7.8
27	7.7	7.4	7.5	7.9	7.6	7.7	8.3	7.3	7.7	8.9	7.1	7.9
28	7.8	7.4	7.6	8.0	7.6	7.7	8.0	7.2	7.5	9.0	7.2	8.0
29	---	---	---	8.1	7.5	7.7	8.7	7.2	7.8	9.0	7.1	8.0
30	---	---	---	8.2	7.5	7.8	8.8	7.4	8.0	8.6	7.2	7.7
31	---	---	---	8.4	7.4	7.8	---	---	---	8.3	7.1	7.6
MONTH	9.3	7.2	7.6	8.7	7.2	7.7	8.9	7.2	7.8	9.2	7.1	7.9

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA--Continued

PH (UNITS), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	7.4	7.0	7.2	7.8	7.1	7.4	8.6	7.3	7.8	7.4	7.1	7.2
2	7.1	6.8	6.9	8.3	7.1	7.6	8.4	7.3	7.7	7.8	7.2	7.4
3	7.1	6.9	7.0	8.5	7.1	7.7	8.1	7.2	7.5	7.7	7.1	7.4
4	7.1	6.9	7.0	8.3	7.1	7.6	8.3	7.3	7.6	8.2	7.2	7.6
5	7.6	6.9	7.2	8.3	7.1	7.6	8.4	7.2	7.6	8.1	7.2	7.5
6	7.4	7.1	7.3	8.0	6.9	7.3	8.3	7.2	7.6	8.2	7.2	7.5
7	7.8	7.2	7.5	7.8	6.9	7.3	8.2	7.3	7.6	8.1	7.1	7.4
8	7.8	7.2	7.5	8.3	7.1	7.6	8.4	7.2	7.7	8.0	7.1	7.4
9	7.4	7.1	7.2	8.0	7.1	7.5	8.4	7.1	7.7	8.1	7.0	7.5
10	7.8	7.1	7.4	8.5	7.1	7.7	8.4	7.2	7.7	8.3	7.2	7.6
11	7.9	7.2	7.5	8.3	7.0	7.6	8.0	7.2	7.5	8.4	7.1	7.7
12	7.7	7.2	7.3	8.3	7.0	7.5	7.9	7.1	7.4	8.4	7.2	7.8
13	---	---	---	8.7	7.0	7.7	7.9	7.2	7.5	8.7	7.2	7.8
14	---	---	---	8.7	7.0	7.8	8.0	7.3	7.4	8.3	7.1	7.6
15	---	---	---	9.0	7.0	8.0	8.2	7.3	7.6	8.5	7.3	7.8
16	---	---	---	9.1	7.0	8.0	8.2	7.2	7.6	8.0	7.1	7.5
17	8.5	7.4	8.0	9.0	7.0	8.0	8.6	7.1	7.5	8.2	7.2	7.6
18	8.6	7.2	7.8	9.0	7.1	8.0	8.3	7.4	7.7	8.4	7.2	7.7
19	8.5	7.1	7.8	9.0	7.0	7.9	8.4	7.3	7.8	8.6	7.2	7.8
20	8.3	7.1	7.6	8.7	7.0	7.7	8.5	7.3	7.8	7.3	7.1	7.2
21	8.4	7.2	7.7	8.8	7.0	7.8	8.5	7.4	7.9	7.6	7.1	7.3
22	8.4	7.2	7.7	8.9	7.1	7.9	8.7	7.3	7.6	7.4	7.1	7.3
23	8.5	7.1	7.7	8.8	7.0	7.8	8.4	7.3	7.7	7.6	7.2	7.3
24	8.7	7.2	7.8	8.7	6.9	7.8	8.4	7.3	7.5	7.5	7.2	7.4
25	8.2	7.1	7.5	8.4	7.0	7.4	8.0	7.3	7.6	8.6	7.3	7.6
26	7.9	7.1	7.4	8.0	7.0	7.4	8.4	7.3	7.8	7.6	7.3	7.5
27	8.1	7.2	7.6	8.6	7.0	7.7	8.6	7.4	8.0	7.8	7.3	7.5
28	8.5	7.1	7.4	8.7	7.2	7.9	8.7	7.3	8.0	7.7	7.3	7.5
29	7.5	7.2	7.3	8.7	7.2	7.9	8.6	7.2	7.9	8.0	7.3	7.6
30	8.0	7.2	7.5	8.7	7.2	7.7	8.6	7.3	7.9	8.1	7.3	7.6
31	---	---	---	8.9	7.3	8.1	8.4	7.2	7.5	---	---	---
MONTH	8.7	6.8	7.5	9.1	6.9	7.7	8.7	7.1	7.7	8.7	7.0	7.5

TEMPERATURE ($^{\circ}C$) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	16.5	15.5	16.0	10.5	8.5	9.5	6.0	2.5	4.0	1.5	0.5	0.5
2	17.0	16.0	16.0	10.0	7.0	9.0	5.5	3.0	4.5	3.0	0.5	1.5
3	16.0	14.5	15.5	10.5	8.5	9.5	6.0	2.0	3.5	4.0	1.0	2.5
4	19.0	15.5	16.5	12.0	9.5	10.5	4.5	2.5	3.5	5.0	3.5	4.0
5	18.5	16.0	17.0	10.5	8.5	9.5	5.0	2.0	3.0	5.0	2.0	3.5
6	19.5	16.5	18.0	9.5	7.0	8.5	5.0	2.0	3.5	5.5	2.5	4.0
7	20.5	18.0	19.0	9.5	7.5	8.5	6.5	3.5	4.5	5.5	1.5	3.5
8	20.5	19.0	19.5	8.5	6.5	7.5	3.5	2.0	3.0	4.0	1.0	2.5
9	20.0	16.5	18.5	8.0	5.5	6.5	4.5	2.0	3.0	3.5	1.5	2.5
10	16.5	14.5	15.5	9.0	6.0	7.5	5.5	3.5	4.5	3.5	0.5	2.0
11	16.0	13.0	14.5	9.0	7.0	8.0	6.5	5.0	6.0	2.5	0.5	1.0
12	16.0	12.0	14.0	9.0	7.0	8.0	7.0	6.0	6.5	3.0	0.5	1.5
13	16.5	12.0	14.5	7.5	5.5	6.5	7.0	4.5	5.5	3.0	0.5	1.0
14	17.0	14.5	15.5	7.0	4.5	6.0	6.5	3.5	4.5	2.5	1.5	2.0
15	17.0	13.5	15.0	8.5	5.5	6.5	6.0	3.5	5.0	4.5	1.5	2.5
16	16.5	14.5	15.5	8.5	5.5	7.0	6.0	4.5	5.5	2.5	0.5	1.5
17	14.0	11.5	13.0	8.5	5.5	7.0	6.5	5.0	5.5	1.0	0.5	0.5
18	13.0	10.0	11.0	9.5	7.0	8.0	6.5	4.5	5.5	1.5	0.5	1.0
19	12.5	8.5	10.5	10.0	7.0	8.5	5.5	3.5	4.5	3.0	0.5	1.5
20	12.5	10.0	11.0	9.0	7.0	8.0	7.5	4.5	6.0	4.5	1.0	2.5
21	12.5	10.5	11.5	7.0	5.5	6.0	6.5	1.5	4.5	4.5	1.5	2.5
22	11.5	10.0	11.0	6.0	4.5	5.5	5.5	1.5	3.5	4.0	1.0	2.0
23	11.5	8.5	10.0	5.5	4.0	4.5	5.5	3.0	4.0	4.0	1.0	2.0
24	11.0	10.0	10.5	5.5	3.5	4.5	4.0	1.0	2.5	4.5	1.5	3.0
25	13.5	11.0	12.0	5.5	4.0	4.5	4.0	1.5	2.5	5.5	3.0	4.0
26	13.5	10.5	11.5	6.5	4.0	5.5	4.0	1.5	2.5	5.0	1.5	3.5
27	10.5	8.5	10.0	9.0	6.5	8.0	3.5	1.0	2.0	5.5	2.0	3.5
28	10.5	7.5	9.0	9.5	8.0	8.5	3.5	2.0	2.5	5.0	1.0	3.0
29	10.5	7.0	9.0	9.5	5.5	8.0	4.0	1.5	2.5	2.5	0.5	1.0
30	10.0	7.5	9.0	5.5	3.5	4.0	5.5	0.5	2.0	3.5	0.5	1.5
31	10.5	9.5	10.0	---	---	---	3.0	0.5	1.5	4.0	0.5	2.0
MONTH	20.5	7.0	13.5	12.0	3.5	7.5	7.5	0.5	4.0	5.5	0.5	2.0

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	5.0	1.0	2.5	8.5	4.5	6.5	17.5	13.5	15.5	20.0	14.5	17.0
2	5.0	1.5	3.5	10.0	4.5	7.0	15.0	11.0	12.5	20.0	16.5	18.5
3	5.0	2.5	4.0	11.0	6.0	8.5	16.5	11.5	14.0	22.5	17.5	20.0
4	5.0	4.0	4.5	9.5	8.5	9.0	14.0	10.5	12.5	19.5	17.0	17.5
5	5.0	0.5	3.0	11.5	7.0	9.5	10.0	9.0	9.5	21.0	16.0	18.5
6	2.0	0.5	1.0	10.0	8.5	9.0	12.5	9.0	10.5	23.0	18.5	20.5
7	6.5	0.0	2.0	11.0	8.0	9.0	13.0	8.5	10.5	21.5	19.5	20.5
8	5.5	1.0	2.5	12.0	7.5	9.5	13.5	10.0	11.5	21.0	16.5	19.0
9	5.5	1.0	3.0	13.5	8.0	10.5	12.5	8.5	10.5	17.5	13.5	15.0
10	7.0	3.5	5.0	14.5	10.0	12.0	14.0	8.5	11.5	17.5	12.5	15.0
11	7.5	2.5	4.5	15.5	11.0	13.0	16.5	11.5	14.0	20.0	14.5	17.0
12	4.0	1.5	2.5	14.5	12.0	13.5	19.0	13.5	16.5	21.5	16.0	18.5
13	3.0	1.0	2.0	14.0	12.0	13.5	20.5	15.5	18.0	23.5	18.5	20.5
14	4.0	1.0	2.5	12.5	11.0	12.0	20.0	17.0	18.5	23.0	18.5	20.5
15	4.5	1.5	2.5	14.5	10.0	12.5	19.0	14.5	17.0	22.0	16.5	19.0
16	4.0	0.5	2.0	14.5	11.0	12.5	18.5	14.0	16.5	22.5	16.5	19.5
17	4.5	0.5	1.5	13.5	10.0	12.0	18.5	13.5	16.0	25.0	18.5	21.5
18	4.5	1.0	2.5	12.0	9.5	10.5	19.0	14.0	17.0	26.5	21.0	23.5
19	5.5	2.5	3.5	11.5	7.5	9.5	19.0	16.0	17.5	25.5	22.0	23.5
20	4.0	2.5	3.5	9.5	7.5	8.5	20.0	16.5	18.0	27.0	21.5	23.5
21	5.0	1.5	2.5	12.0	7.0	9.5	21.5	16.5	19.0	27.5	22.0	24.5
22	6.0	1.5	3.5	10.5	9.5	9.5	22.5	18.0	20.5	27.0	21.5	24.0
23	9.0	4.0	6.0	---	---	---	23.0	19.5	21.5	26.5	21.5	24.0
24	7.0	3.5	5.0	10.5	8.0	9.5	21.5	16.5	19.0	27.0	22.5	24.5
25	6.0	2.0	4.5	10.5	6.0	8.5	19.5	15.5	17.0	26.0	22.5	24.0
26	8.0	4.0	6.0	11.5	7.0	9.5	18.0	16.0	17.0	28.0	22.5	24.5
27	10.0	6.0	8.0	13.0	8.0	10.5	18.5	14.5	16.5	28.0	21.5	24.5
28	9.5	6.5	7.5	12.0	10.5	11.5	17.5	15.0	16.5	28.0	22.0	24.5
29	---	---	---	17.0	11.0	14.0	18.0	13.5	16.0	26.5	21.5	23.5
30	---	---	---	20.0	15.0	17.5	19.0	13.5	16.5	21.5	20.0	20.5
31	---	---	---	18.5	15.5	17.0	---	---	---	21.5	19.0	20.5
MONTH	10.0	0.0	3.5	20.0	4.5	11.0	23.0	8.5	15.5	28.0	12.5	21.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	23.0	19.5	21.0	27.0	24.0	25.5	28.0	23.5	25.5	26.0	23.5	24.5
2	25.0	19.0	22.0	29.0	23.0	25.5	28.5	23.0	25.5	29.5	24.0	26.5
3	25.5	20.5	23.0	28.5	21.5	24.5	25.5	24.0	24.5	27.5	24.0	26.0
4	25.5	19.5	22.0	27.0	21.5	24.5	30.0	24.0	26.0	27.5	23.0	25.0
5	22.5	20.5	21.0	29.0	23.5	26.5	31.0	25.5	28.0	27.5	24.0	25.5
6	20.5	19.0	20.0	30.5	25.0	27.0	31.0	25.5	27.5	28.5	24.0	26.0
7	21.5	18.0	19.5	27.0	25.0	26.0	29.0	24.0	26.5	27.0	23.5	25.0
8	24.0	17.0	20.5	30.0	25.0	27.0	31.0	25.5	28.0	27.0	23.5	25.0
9	21.0	17.5	19.5	28.0	25.0	26.5	30.0	25.5	28.0	26.0	21.5	23.5
10	20.5	18.0	19.0	29.5	24.0	26.5	30.0	25.5	27.5	27.5	23.0	24.5
11	23.5	17.5	20.0	26.5	23.0	25.0	29.5	24.5	27.0	24.5	20.0	22.5
12	23.5	19.0	21.0	29.0	24.0	26.0	28.0	25.5	27.0	25.0	18.5	22.0
13	---	---	---	31.0	25.0	27.5	27.5	25.5	26.0	25.5	21.0	23.0
14	---	---	---	31.0	24.5	27.5	25.5	24.0	24.5	25.5	22.0	23.5
15	---	---	---	31.5	24.5	27.5	28.5	23.5	25.5	24.0	21.0	22.5
16	---	---	---	32.0	23.5	28.0	28.0	24.5	26.0	24.0	20.5	22.5
17	27.0	24.0	25.5	32.5	25.5	29.0	27.0	24.5	26.0	25.0	22.0	23.5
18	29.0	23.0	25.5	32.5	26.5	29.0	26.5	23.0	24.5	26.0	21.5	23.5
19	27.5	23.0	25.0	33.5	26.0	29.5	27.0	22.0	24.0	28.0	22.5	25.0
20	27.0	22.5	24.5	30.5	27.0	28.5	27.5	21.5	24.0	25.0	22.0	23.5
21	26.5	22.0	24.0	33.0	27.0	29.5	25.0	20.5	22.5	24.0	22.0	22.5
22	27.0	20.5	24.0	31.0	25.5	28.5	25.5	20.0	22.5	22.5	21.5	22.0
23	28.5	21.0	24.5	30.5	22.0	26.5	26.5	21.5	24.0	22.5	20.5	21.5
24	28.5	23.0	25.0	30.0	22.5	26.5	26.0	23.0	24.0	23.0	21.0	22.0
25	26.0	23.0	24.0	27.0	24.0	25.5	26.5	21.0	23.5	21.5	17.5	18.5
26	25.0	20.0	23.0	28.0	23.0	25.0	27.0	20.0	23.5	21.0	18.0	19.5
27	29.0	21.5	25.0	29.0	21.5	25.0	27.5	22.0	24.5	22.0	19.0	20.5
28	26.5	22.5	24.5	28.5	20.5	24.5	29.0	22.5	25.5	22.0	19.0	20.5
29	27.5	22.5	24.5	29.5	22.0	25.5	30.5	23.5	26.5	22.5	18.5	20.0
30	29.0	23.0	25.5	28.0	24.0	25.5	30.5	25.5	27.5	23.5	19.5	21.0
31	---	---	---	28.5	22.5	25.5	30.0	24.0	27.0	---	---	---
MONTH	29.0	17.0	23.0	33.5	20.5	26.5	31.0	20.0	25.5	29.5	17.5	23.0

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA--Continued

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	10.7	8.7	9.5	12.2	11.3	11.6	14.2	12.8	13.5	15.0	14.3	14.7
2	10.1	8.3	9.1	12.4	10.7	11.5	13.6	12.8	13.0	15.1	14.2	14.7
3	10.2	8.8	9.6	11.6	10.1	11.0	14.1	12.8	13.2	14.6	13.3	14.1
4	10.3	8.7	9.7	11.1	9.9	10.5	14.2	12.5	13.4	14.1	13.0	13.5
5	9.9	8.4	9.2	10.9	9.9	10.4	14.4	13.3	13.7	14.1	12.1	13.0
6	10.4	8.5	9.4	11.5	10.0	10.8	---	---	---	12.9	11.7	12.3
7	10.4	7.9	9.0	11.3	9.9	10.6	---	---	---	12.7	11.6	12.2
8	9.6	7.7	8.5	12.0	9.9	10.8	---	---	---	13.2	11.9	12.6
9	9.7	7.8	9.0	12.6	10.9	11.7	13.4	12.9	13.2	13.3	12.2	12.8
10	10.3	9.7	10.0	12.0	10.4	11.3	13.1	12.2	12.6	12.9	12.0	12.5
11	10.9	9.7	10.3	12.0	10.2	11.1	12.4	12.0	12.2	13.7	12.6	13.2
12	11.2	9.7	10.4	12.2	11.1	11.6	12.2	11.3	11.9	13.3	12.6	13.0
13	11.0	9.1	10.1	12.8	11.1	12.0	12.7	11.6	12.2	15.4	12.7	13.4
14	10.5	9.0	9.6	12.9	11.6	12.3	12.9	11.9	12.5	13.1	12.3	12.8
15	11.5	9.2	10.1	12.8	11.0	11.8	13.3	11.9	12.6	13.0	12.1	12.6
16	11.5	9.5	10.3	12.5	11.0	11.8	12.8	11.4	12.1	14.7	12.2	12.9
17	11.9	9.7	10.8	12.7	11.0	11.8	12.8	11.2	11.8	14.7	12.5	13.2
18	12.6	10.7	11.5	12.1	10.7	11.2	12.9	11.3	12.0	14.6	12.3	13.1
19	12.9	10.9	11.6	12.0	10.4	11.1	13.5	11.8	12.7	14.1	11.9	12.8
20	11.2	10.6	10.9	12.2	10.3	11.1	12.8	10.9	12.0	12.9	11.6	12.3
21	11.9	10.4	11.0	12.6	10.5	11.6	13.1	11.4	12.4	12.9	11.8	12.3
22	11.4	10.6	11.0	12.6	11.2	11.7	14.2	10.9	13.4	12.9	11.7	12.3
23	11.9	10.8	11.3	12.9	11.4	12.0	13.8	12.9	13.4	13.1	12.0	12.6
24	11.4	10.5	11.0	13.1	11.8	12.3	14.5	13.0	14.0	12.6	11.4	12.1
25	11.1	10.1	10.8	13.3	12.0	12.5	14.3	13.5	14.0	12.2	11.0	11.6
26	11.6	9.9	10.7	13.3	11.6	12.5	14.1	13.3	13.7	12.2	11.2	11.7
27	12.5	11.5	11.9	12.8	11.3	11.9	14.3	13.5	13.9	11.8	10.8	11.3
28	13.0	11.9	12.4	12.8	11.1	11.8	14.7	13.4	13.9	12.1	10.4	11.4
29	13.2	11.9	12.5	12.6	10.8	11.8	14.6	13.4	14.1	13.8	11.2	12.3
30	13.2	11.7	12.4	14.3	12.5	13.4	16.3	13.9	14.6	12.6	11.2	12.0
31	12.0	11.2	11.6	---	---	---	15.5	13.7	14.5	12.4	11.1	11.7
MONTH	13.2	7.7	10.5	14.3	9.9	11.6	16.3	10.9	13.1	15.4	10.4	12.7

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	12.4	10.9	11.7	12.2	10.5	11.4	10.1	8.2	9.2	11.3	7.6	9.4
2	12.8	11.1	11.9	12.3	10.5	11.3	9.7	8.4	9.2	10.9	7.3	8.5
3	12.0	10.9	11.4	12.2	9.9	11.0	9.3	7.4	8.5	10.9	6.6	8.6
4	12.6	10.5	11.4	11.0	9.9	10.5	8.5	7.7	8.1	9.9	6.6	8.3
5	12.5	10.8	11.5	11.5	9.9	10.8	10.6	8.2	10.0	10.1	7.0	8.4
6	14.4	12.3	12.9	11.6	10.2	10.9	10.6	9.9	10.4	9.0	5.8	7.3
7	14.5	10.4	12.5	11.7	10.1	10.9	11.6	10.2	10.9	8.8	5.9	7.1
8	13.0	11.5	12.2	12.1	9.8	10.9	11.1	10.0	10.5	9.3	5.8	7.4
9	12.7	11.2	11.9	12.4	9.4	10.8	11.6	10.0	10.8	9.2	6.1	7.8
10	12.9	10.7	11.5	12.3	9.4	10.6	11.4	9.5	10.5	10.7	7.2	9.3
11	12.6	11.0	11.8	12.4	8.9	10.5	10.9	8.7	9.8	11.3	7.4	9.7
12	13.0	12.0	12.5	12.3	8.5	10.1	10.3	8.0	9.2	11.5	6.9	9.0
13	12.7	12.3	12.5	10.5	8.5	9.6	9.9	7.5	8.7	11.8	6.7	8.6
14	12.9	12.2	12.6	10.9	10.1	10.5	9.8	7.6	8.6	11.5	6.9	8.7
15	12.8	12.2	12.5	11.0	9.5	10.4	10.3	7.9	9.0	11.4	7.0	9.1
16	13.1	12.3	12.7	11.0	9.7	10.3	10.5	7.7	9.1	11.4	6.2	9.0
17	12.9	11.5	12.5	11.6	9.8	10.6	10.7	7.9	9.2	13.2	6.2	9.0
18	13.1	12.0	12.5	11.0	9.9	10.6	10.6	7.1	8.9	12.9	5.8	8.7
19	13.0	11.5	12.3	12.3	10.6	11.4	10.2	7.1	8.5	10.0	5.9	7.9
20	12.5	11.7	11.9	12.2	10.7	11.4	10.8	7.3	8.7	11.0	5.8	7.9
21	13.4	11.6	12.4	12.6	10.3	11.6	10.9	6.7	8.6	10.5	5.6	7.9
22	13.0	11.3	12.1	11.0	10.4	10.8	10.5	6.4	8.2	11.7	5.5	8.3
23	12.7	10.9	11.6	---	---	---	10.2	6.1	7.9	10.7	5.2	8.0
24	12.2	10.8	11.6	12.0	11.4	11.6	9.8	6.4	7.9	11.5	5.0	7.7
25	12.6	11.1	11.9	12.8	11.3	11.9	9.9	7.4	8.8	10.1	4.8	6.9
26	12.1	10.5	11.4	12.6	11.0	11.7	10.0	7.8	8.7	11.3	4.7	7.4
27	11.5	9.7	10.8	12.3	10.6	11.4	10.7	8.2	9.6	10.4	5.0	7.5
28	11.6	10.1	11.0	11.4	10.3	10.9	10.7	8.4	9.4	12.1	4.8	8.0
29	---	---	---	11.1	8.9	10.2	10.9	8.1	9.6	11.2	4.7	7.8
30	---	---	---	10.1	7.7	9.0	11.3	7.7	9.5	11.1	5.3	8.0
31	---	---	---	9.3	7.6	8.7	---	---	---	10.1	5.5	7.9
MONTH	14.5	9.7	12.0	12.8	7.6	10.7	11.6	6.1	9.2	13.2	4.7	8.2

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA--Continued

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	8.2	5.2	6.5	8.0	5.7	6.9	10.9	3.6	6.5	---	---	---
2	7.6	5.9	7.0	7.7	4.4	6.3	---	---	---	---	---	---
3	8.4	6.0	7.1	9.4	4.3	6.7	7.3	6.4	6.8	---	---	---
4	8.3	5.4	6.9	8.5	4.8	6.5	8.9	5.1	7.1	---	---	---
5	8.4	5.3	6.7	8.5	3.9	5.9	9.5	4.6	6.5	---	---	---
6	7.0	5.2	6.0	8.4	3.3	5.3	9.5	4.4	6.6	---	---	---
7	7.6	5.3	6.7	8.2	3.9	6.0	8.0	4.9	6.8	---	---	---
8	9.0	5.5	7.1	9.0	5.6	7.0	8.7	4.7	6.3	---	---	---
9	7.7	4.1	6.5	8.5	5.1	6.8	8.4	4.4	6.0	9.5	5.6	7.7
10	8.9	6.1	7.6	10.3	5.7	7.4	10.4	4.2	6.8	10.0	5.5	7.4
11	9.1	6.6	8.0	10.1	5.0	7.4	8.9	6.3	7.6	9.9	6.0	7.6
12	9.5	6.6	7.5	10.8	4.4	6.9	8.3	5.3	6.8	9.9	5.6	7.6
13	---	---	---	11.6	4.4	7.4	8.5	5.3	6.9	11.8	5.2	8.0
14	---	---	---	11.3	4.0	7.3	8.1	6.7	7.4	9.4	5.1	6.9
15	---	---	---	14.1	4.1	8.3	9.4	6.3	8.1	10.7	5.4	7.6
16	---	---	---	14.5	3.8	8.3	8.8	5.6	7.2	10.9	4.8	7.3
17	9.6	5.8	7.3	12.7	3.8	7.7	8.2	5.6	6.9	10.6	5.9	8.6
18	10.6	5.6	7.8	13.6	3.1	7.9	9.0	6.9	7.9	11.4	6.5	8.8
19	9.7	6.0	7.8	12.8	3.4	7.2	9.5	6.5	7.9	12.5	6.4	8.9
20	10.6	5.9	7.3	10.6	2.8	6.4	9.4	6.2	7.6	9.5	6.5	8.8
21	10.1	5.6	7.7	12.1	3.0	6.7	10.1	6.1	8.2	10.3	7.9	8.9
22	10.7	5.7	7.8	13.1	2.9	7.4	8.8	6.1	7.2	9.5	7.8	8.9
23	10.0	5.0	7.5	13.1	3.7	7.6	---	---	---	9.9	8.1	9.0
24	11.5	4.8	8.0	12.0	3.3	7.1	---	---	---	10.0	7.9	8.9
25	10.3	5.4	7.2	11.4	2.9	6.2	---	---	---	10.8	8.6	10.2
26	8.4	5.3	7.7	9.6	5.0	6.9	9.7	6.3	8.2	10.6	9.0	10.0
27	8.8	5.2	7.2	10.3	4.9	6.9	10.6	6.0	7.9	10.3	8.4	9.3
28	8.3	4.8	6.9	11.2	4.1	7.2	11.1	6.3	7.8	9.8	8.0	8.9
29	7.7	4.6	6.4	10.1	3.7	6.8	10.8	4.6	7.2	11.2	7.9	9.2
30	8.8	5.1	7.1	11.2	3.6	6.6	10.1	4.3	6.8	11.5	8.4	9.7
31	---	---	---	11.7	5.4	7.9	8.7	4.5	5.8	---	---	---
MONTH	11.5	4.1	7.2	14.5	2.8	7.0	11.1	3.6	7.1	12.5	4.8	8.6

01480675 MARSH CREEK NEAR GLENMOORE, PA

LOCATION.--Lat 40°05'52", long 75°44'31", Chester County, Hydrologic Unit 02040205, on left bank 200 ft (60 m) north of Pennsylvania Turnpike, 1.2 mi (1.9 km) downstream from Lyons Run, 1.8 mi (2.9 km) upstream from Black Horse Creek, and 3 mi (5 km) northeast of Glenmoore.

DRAINAGE AREA.--8.57 mi² (22.20 km²).

PERIOD OF RECORD.--July 1966 to current year.

REVISED RECORDS.--WDR PA-74: 1967(M), 1971-72(P).

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 450 ft (137 m), from topographic map.

REMARKS.--Records good.

AVERAGE DISCHARGE.--11 years, 12.4 ft³/s (0.351 m³/s), 19.69 in/yr (500 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 946 ft³/s (26.8 m³/s) June 22, 1972, gage height, 4.68 ft (1.426 m); minimum, 0.3 ft³/s (0.008 m³/s) Aug. 31, 1966, gage height, 0.98 ft (0.299 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 130 ft³/s (3.68 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 23	0215	*166	4.70	*2.47	0.753	Apr. 5	1345	160	4.53	2.45	0.747

Minimum discharge, 1.4 ft³/s (0.040 m³/s) Sept. 15, 16, gage height, 1.20 ft (0.366 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	28	7.2	4.3	4.7	11	12	11	5.0	2.6	2.3	26
2	11	13	6.2	4.2	4.7	9.1	26	10	11	2.3	3.1	20
3	44	9.8	5.1	4.3	4.7	8.7	48	9.8	6.9	2.1	3.6	7.3
4	45	10	5.0	4.5	5.0	22	22	9.6	4.2	1.9	3.2	3.9
5	13	9.9	5.0	4.5	5.1	49	129	17	4.0	2.0	2.7	3.0
6	8.4	9.2	5.0	4.3	5.1	20	68	18	5.6	2.5	2.4	3.2
7	7.0	8.6	35	4.7	4.8	13	27	13	7.5	4.6	2.4	3.5
8	6.3	8.2	48	4.5	4.7	10	23	9.2	5.3	4.3	2.2	3.1
9	33	7.4	15	4.7	4.7	9.4	20	9.0	8.0	3.3	2.0	2.5
10	60	7.8	9.2	9.9	4.8	9.4	19	8.2	13	2.6	3.6	2.3
11	18	7.7	9.9	9.2	8.1	9.3	18	7.3	8.8	2.3	5.9	2.1
12	9.0	7.3	11	8.1	13	9.1	17	6.8	4.9	3.0	5.3	1.7
13	7.3	7.0	9.9	6.9	36	34	16	6.4	4.1	5.0	4.2	1.6
14	6.6	6.8	6.6	6.6	31	75	15	5.8	4.1	4.3	5.0	1.5
15	6.0	6.9	5.7	6.9	18	26	14	5.3	5.1	2.3	5.9	1.5
16	5.6	6.7	6.6	6.4	11	16	13	5.2	4.6	2.2	4.4	1.6
17	5.1	6.4	7.5	6.0	7.9	13	13	5.1	4.0	2.1	3.5	3.1
18	5.2	6.9	7.2	5.5	5.5	17	12	5.3	4.1	2.0	3.6	3.4
19	4.9	6.9	6.6	5.1	5.3	20	12	6.7	4.0	1.9	3.4	4.9
20	13	6.7	8.1	5.1	6.3	15	12	5.7	4.0	2.1	2.5	14
21	65	6.3	13	5.1	6.0	16	11	5.0	4.1	2.0	2.0	11
22	34	6.2	7.8	5.0	5.5	66	11	4.6	4.0	1.9	3.9	5.9
23	12	5.6	6.0	5.0	8.2	105	11	4.4	3.8	1.8	5.0	5.1
24	9.1	5.4	5.0	5.1	25	27	13	4.4	3.7	1.7	3.6	4.6
25	12	5.7	4.5	5.5	88	18	38	4.3	3.7	1.9	3.6	17
26	22	6.0	5.3	5.5	29	16	27	4.2	3.9	2.2	3.2	22
27	19	6.7	5.7	5.7	16	15	20	4.1	3.8	1.9	2.4	10
28	11	6.7	5.7	5.3	18	15	15	4.1	3.9	1.8	2.1	7.8
29	8.9	11	5.7	5.0	---	15	17	4.1	4.4	1.6	1.9	5.6
30	8.4	10	5.0	4.7	---	14	14	4.1	3.3	1.6	1.8	3.9
31	22	---	4.7	4.7	---	13	---	4.2	---	1.6	6.6	---
TOTAL	541.8	250.8	288.2	172.3	386.1	716.0	713	221.9	156.8	75.4	107.3	203.1
MEAN	17.5	8.36	9.30	5.56	13.8	23.1	23.8	7.16	5.23	2.43	3.46	6.77
MAX	65	28	48	9.9	88	105	129	18	13	5.0	6.6	26
MIN	4.9	5.4	4.5	4.2	4.7	8.7	11	4.1	3.3	1.6	1.8	1.5
CFSM	2.04	.98	1.09	.65	1.61	2.70	2.78	.84	.61	.28	.40	.79
IN.	2.35	1.09	1.25	.75	1.68	3.11	3.09	.96	.68	.33	.47	.88

CAL YR 1976 TOTAL 4482.0 MEAN 12.2 MAX 120 MIN 2.5 CFSM 1.42 IN 19.46
WTR YR 1977 TOTAL 3832.7 MEAN 10.5 MAX 129 MIN 1.5 CFSM 1.23 IN 16.63

01480685 MARSH CREEK NEAR DOWNINGTOWN, PA

LOCATION.--Lat 40°03'19", long 75°43'00", Chester County, Hydrologic Unit 02040205, on left bank 1,000 ft (305 m) downstream from Marsh Creek Dam, 0.2 mi (0.3 km) upstream from mouth and 3.0 mi (4.8 km) north of Downingtown.

DRAINAGE AREA.--20.3 mi² (52.6 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 280 ft (85 m), from topographic map.

REMARKS.--Records good. Flow completely regulated since November 1973 by Marsh Creek Reservoir 1,000 ft (305 m) upstream (see p. 252).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 423 ft³/s (12.0 m³/s) Feb. 9, 1976, gage height, 3.46 ft (1.055 m), from rating curve extended above 200 ft³/s (5.7 m³/s); minimum daily, 0.31 ft³/s (0.009 m³/s) Dec. 22, 23, 1973.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 137 ft³/s (3.88 m³/s) Apr. 13, gage height, 2.73 ft (0.832 m); minimum daily, 3.1 ft³/s (0.088 m³/s) July 27, 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	39	16	14	12	52	52	28	11	7.3	3.7	23
2	13	37	16	13	11	46	16	28	15	7.0	4.2	24
3	27	34	15	13	11	41	19	28	15	6.8	4.4	23
4	41	32	14	12	11	43	20	27	14	6.3	4.5	19
5	39	30	14	12	12	54	32	29	13	6.1	4.4	17
6	35	27	13	12	11	55	50	33	14	6.8	4.9	14
7	30	25	26	13	11	51	54	34	15	10	5.7	12
8	26	23	42	13	11	67	81	31	14	9.7	5.3	10
9	43	21	42	13	11	94	95	29	16	9.1	4.9	8.8
10	55	20	37	16	11	83	92	26	21	8.6	5.3	8.0
11	53	19	34	18	12	36	90	22	21	7.8	7.5	6.3
12	45	18	31	18	16	7.9	87	20	19	7.0	7.3	4.9
13	38	18	29	17	25	20	102	19	18	6.8	8.0	4.5
14	32	17	26	17	35	54	116	18	17	6.3	8.8	4.2
15	26	17	24	18	38	79	80	18	18	5.7	9.4	4.0
16	22	17	22	17	35	101	68	17	18	5.3	8.8	3.7
17	19	16	21	16	32	88	83	17	17	4.9	9.4	4.7
18	17	16	20	16	28	52	75	17	16	4.5	9.1	5.1
19	15	16	20	15	25	19	33	17	16	4.4	8.3	5.7
20	20	15	21	14	24	21	5.0	17	15	4.2	7.3	12
21	48	15	22	14	22	23	7.8	16	14	4.0	6.3	13
22	53	15	19	13	21	43	11	16	13	3.4	11	13
23	47	14	19	13	20	74	13	15	10	3.5	11	13
24	42	14	18	13	27	94	16	14	4.4	3.4	10	12
25	39	14	17	13	58	89	24	14	4.5	3.9	9.7	17
26	41	14	17	13	65	86	60	14	5.5	4.4	8.6	20
27	39	14	17	13	62	84	64	13	7.5	3.1	7.5	21
28	36	14	16	13	57	81	28	13	6.3	3.1	7.0	22
29	32	16	16	13	---	79	30	12	8.6	3.7	6.6	19
30	29	17	15	12	---	77	30	11	8.0	4.7	6.1	17
31	35	---	15	12	---	74	---	11	---	4.5	10	---
TOTAL	1049	604	674	439	714	1867.9	1533.8	624	404.8	176.3	225.0	380.9
MEAN	33.8	20.1	21.7	14.2	25.5	60.3	51.1	20.1	13.5	5.69	7.26	12.7
MAX	55	39	42	18	65	101	116	34	21	10	11	24
MIN	12	14	13	12	11	7.9	5.0	11	4.4	3.1	3.7	3.7
MEAN≠	38.4	16.9	20.9	13.7	32.0	54.4	52.4	16.5	14.8	3.89	11.4	12.9
CFSM≠	1.89	.83	1.03	.67	1.58	2.68	2.58	.81	.73	.19	.56	.64
IN.≠	2.18	.93	1.19	.77	1.64	3.09	2.88	.93	.81	.22	.65	.71

CAL YR 1976 TOTAL 9627.9 MEAN 26.3 MAX 279 MIN 3.9 MEAN≠ 27.8 CFSM≠ 1.37 IN.≠ 18.67
WTR YR 1977 TOTAL 8692.7 MEAN 23.8 MAX 116 MIN 3.1 MEAN≠ 24.0 CFSM≠ 1.18 IN.≠ 16.02

≠ Adjusted for change in contents in Marsh Creek Reservoir.

01480685 MARSH CREEK NEAR DOWNINGTOWN, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1973 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 31.5°C Aug. 2, 1975, Jul. 19, 1977; minimum, 1.0°C Dec. 22, 1973, Feb. 9, 10, 1974.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 31.5°C July 19; minimum, 2.0°C on many days during Dec., Jan., and Feb.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	18.5	18.0	18.0	11.0	10.0	10.5	6.0	5.0	5.5	2.5	2.0	2.0
2	18.0	17.5	18.0	11.0	10.5	10.5	5.5	5.0	5.0	2.5	2.0	2.0
3	18.0	17.0	17.5	10.5	10.5	10.5	5.0	5.0	5.0	2.5	2.0	2.0
4	18.5	17.5	17.5	11.0	10.5	10.5	5.0	5.0	5.0	2.5	2.0	2.5
5	18.0	17.5	17.5	10.5	9.0	10.0	5.0	5.0	5.0	2.5	2.0	2.0
6	18.5	17.5	17.5	10.0	9.0	9.5	5.0	5.0	5.0	2.5	2.0	2.0
7	18.5	17.5	17.5	10.0	9.0	9.5	5.0	2.0	4.0	2.5	2.0	2.0
8	18.0	17.5	17.5	9.0	9.0	9.0	4.0	3.0	3.5	2.5	2.0	2.0
9	18.0	17.0	17.5	9.0	9.0	9.0	3.5	3.5	3.5	2.5	2.0	2.0
10	17.0	16.5	17.0	9.0	9.0	9.0	4.0	3.5	3.5	2.5	2.0	2.0
11	17.0	16.0	16.5	9.0	9.0	9.0	3.5	3.5	3.5	3.0	2.0	2.0
12	17.5	16.0	16.5	9.0	8.5	8.5	3.5	3.5	3.5	2.5	2.0	2.0
13	16.5	16.0	16.0	8.5	8.0	8.5	3.5	2.0	3.0	2.5	2.0	2.0
14	16.0	16.0	16.0	8.5	8.0	8.5	2.5	2.0	2.5	2.5	2.0	2.0
15	16.0	16.0	16.0	8.5	7.5	8.0	---	---	---	3.0	2.0	2.5
16	16.0	15.5	15.5	8.0	7.0	7.5	---	---	---	2.5	2.0	2.0
17	15.5	14.5	15.0	8.0	7.0	7.5	---	---	---	2.5	2.0	2.0
18	14.5	14.0	14.5	7.5	7.0	7.0	---	---	---	2.5	2.0	2.0
19	14.5	13.5	14.0	---	---	---	---	---	---	2.5	2.0	2.0
20	14.0	12.0	13.5	---	---	---	---	---	---	2.5	2.0	2.0
21	14.0	13.0	13.5	---	---	---	---	---	---	2.5	2.0	2.0
22	13.5	13.0	13.0	---	---	---	---	---	---	2.5	2.0	2.0
23	13.0	12.5	13.0	---	---	---	---	---	---	2.5	2.0	2.0
24	12.5	12.5	12.5	---	---	---	---	---	---	2.5	2.0	2.0
25	12.5	12.5	12.5	---	---	---	---	---	---	2.5	2.0	2.0
26	12.5	12.0	12.5	---	---	---	---	---	---	2.5	2.0	2.0
27	12.0	12.0	12.0	---	---	---	2.0	2.0	2.0	2.5	2.0	2.0
28	12.0	11.5	11.5	---	---	---	2.0	2.0	2.0	2.0	2.0	2.0
29	12.0	11.0	11.5	---	---	---	2.5	2.0	2.0	2.0	2.0	2.0
30	11.0	11.0	11.0	---	---	---	2.5	2.0	2.0	2.5	2.0	2.0
31	11.5	9.5	11.0	---	---	---	2.5	2.0	2.0	2.0	2.0	2.0
MONTH	18.5	9.5	15.0	11.0	7.0	9.0	6.0	2.0	3.5	3.0	2.0	2.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	2.5	2.0	2.0	5.0	5.0	5.0	9.0	7.0	8.0	---	---	---
2	2.5	2.0	2.0	5.5	5.0	5.0	8.0	7.5	7.5	---	---	---
3	2.0	2.0	2.0	6.0	5.0	5.5	10.5	8.0	9.0	---	---	---
4	2.5	2.0	2.0	5.5	5.0	5.0	9.0	7.5	8.5	---	---	---
5	2.5	2.0	2.0	6.5	5.0	5.5	9.0	7.0	8.5	---	---	---
6	2.5	2.0	2.0	5.0	5.0	5.0	9.5	8.0	9.0	---	---	---
7	2.5	2.0	2.0	6.0	5.0	5.0	9.5	8.0	8.5	---	---	---
8	2.5	2.0	2.0	6.0	5.0	5.0	9.0	8.0	8.5	---	---	---
9	2.5	2.0	2.0	5.0	5.0	5.0	9.0	8.0	8.5	---	---	---
10	2.5	2.0	2.0	5.0	5.0	5.0	9.0	8.0	9.0	---	---	---
11	3.0	2.0	2.0	---	---	---	9.0	8.5	9.0	---	---	---
12	3.0	2.0	2.5	---	---	---	10.5	8.5	9.5	---	---	---
13	3.0	2.0	2.5	---	---	---	11.5	9.0	10.0	---	---	---
14	3.0	2.5	3.0	---	---	---	12.0	10.5	11.0	---	---	---
15	3.5	2.5	3.0	---	---	---	13.5	9.0	11.5	---	---	---
16	3.5	3.0	3.5	---	---	---	12.5	9.5	11.5	---	---	---
17	3.5	3.0	3.5	---	---	---	11.0	9.0	10.0	17.0	14.0	16.0
18	4.0	3.5	3.5	---	---	---	10.5	9.0	9.5	17.5	15.0	16.5
19	4.0	3.5	3.5	---	---	---	15.5	9.0	12.0	17.0	15.5	16.5
20	3.5	3.5	3.5	---	---	---	16.5	13.0	14.5	19.0	16.0	17.0
21	4.0	3.5	3.5	---	---	---	17.5	13.5	15.0	19.0	15.5	16.5
22	4.0	3.5	3.5	---	---	---	---	---	---	18.5	15.5	16.5
23	4.5	4.0	4.5	---	---	---	---	---	---	18.5	16.0	16.5
24	4.5	2.0	4.0	---	---	---	---	---	---	18.5	16.0	17.0
25	4.5	3.0	4.0	---	---	---	---	---	---	18.0	16.0	16.5
26	4.5	4.0	4.0	---	---	---	---	---	---	18.5	16.0	17.0
27	5.0	4.5	4.5	---	---	---	---	---	---	18.5	15.5	17.0
28	5.0	5.0	5.0	---	---	---	---	---	---	18.0	15.5	16.5
29	---	---	---	---	---	---	---	---	---	17.0	14.5	16.0
30	---	---	---	7.5	7.0	7.0	---	---	---	14.5	14.0	14.0
31	---	---	---	9.0	7.0	8.0	---	---	---	14.5	13.5	14.0
MONTH	5.0	2.0	3.0	9.0	5.0	5.5	17.5	7.0	10.0	19.0	13.5	16.0

01480685 MARSH CREEK NEAR DOWNINGTOWN, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	14.5	13.5	14.0	25.5	24.5	25.0	25.5	17.0	22.5	26.5	25.0	26.0
2	18.0	14.5	16.0	27.0	24.0	25.0	26.5	21.5	24.0	28.0	25.0	26.5
3	17.0	15.5	16.0	27.0	24.0	25.5	24.5	23.0	24.0	27.0	25.5	26.5
4	17.5	15.0	16.0	26.0	24.5	25.5	28.0	23.0	25.0	27.5	25.5	26.5
5	16.0	15.0	15.5	27.5	24.5	26.0	28.0	25.0	26.5	27.0	25.5	26.0
6	15.5	14.5	15.0	28.0	25.5	26.5	29.0	25.5	27.0	27.0	25.5	26.5
7	15.5	14.5	15.0	26.0	25.5	25.5	29.0	26.0	27.5	26.5	25.0	25.5
8	16.0	14.0	15.0	27.5	25.5	26.0	29.5	26.5	27.5	25.5	24.0	25.0
9	15.5	14.0	14.5	27.0	26.0	26.5	28.5	26.5	27.0	25.5	23.5	24.5
10	16.0	14.5	15.5	27.5	26.0	26.5	28.5	26.0	27.0	---	---	---
11	16.5	14.5	15.5	26.5	25.5	26.0	29.0	26.5	27.5	---	---	---
12	17.0	15.0	16.0	27.0	25.0	26.0	27.5	26.5	27.0	---	---	---
13	17.5	16.0	16.5	28.5	25.0	26.5	27.0	26.5	26.5	---	---	---
14	17.0	16.0	16.0	29.5	26.0	27.5	26.5	26.0	26.5	---	---	---
15	17.5	16.5	17.0	30.5	26.5	28.5	28.0	25.5	26.5	23.0	21.0	22.0
16	18.5	16.5	17.0	31.0	27.0	29.0	27.0	25.5	26.5	22.0	21.0	21.5
17	17.5	16.0	16.5	30.5	27.5	29.0	26.5	25.0	26.0	23.5	21.0	22.0
18	20.0	16.0	17.5	31.0	27.0	29.0	26.5	24.5	25.5	24.5	21.5	23.0
19	19.5	17.0	18.0	31.5	27.5	29.5	26.5	24.0	25.0	25.0	22.0	23.5
20	18.5	16.5	17.5	30.0	28.5	29.0	26.0	24.0	25.0	24.5	23.0	24.0
21	18.0	16.0	17.0	31.0	27.5	29.0	25.5	23.5	24.5	24.0	22.5	23.5
22	17.5	15.5	16.5	30.0	26.0	28.0	25.5	22.5	24.0	22.5	21.5	22.0
23	23.5	15.0	17.5	27.0	22.5	25.0	26.0	23.5	25.0	21.5	21.0	21.0
24	25.0	21.5	23.5	26.5	23.0	24.5	24.5	24.0	24.5	21.5	21.0	21.0
25	24.0	22.0	23.0	24.5	20.0	22.5	25.0	23.0	24.0	21.0	20.0	20.5
26	25.5	22.0	24.0	24.5	21.0	23.0	25.0	23.0	24.0	21.0	20.0	20.5
27	27.5	23.0	25.0	26.5	22.5	24.0	24.5	22.5	23.5	21.0	19.5	20.0
28	26.0	23.5	24.5	26.0	21.5	23.5	25.5	23.5	24.5	20.5	19.5	20.0
29	26.5	24.0	25.0	25.5	19.5	22.0	26.5	24.0	25.0	20.5	19.5	19.5
30	27.0	24.0	25.5	22.5	19.0	20.5	27.5	24.5	26.0	20.5	19.0	19.5
31	---	---	---	21.0	18.0	19.5	27.5	23.5	26.0	---	---	---
MONTH	27.5	13.5	18.0	31.5	18.0	26.0	29.5	17.0	25.5	28.0	19.0	23.0

01480700 EAST BRANCH BRANDYWINE CREEK NEAR DOWNINGTOWN, PA

LOCATION.--Lat 40°02'05", long 75°42'32", Chester County, Hydrologic Unit 02040205, on right bank 20 ft (6 m) downstream from bridge on Dowlin Forge Road, 200 ft (60 m) east of State Highway 282, 0.4 mi (0.6 km) downstream from Shamona Creek, 1.5 mi (2.4 km) downstream from Marsh Creek, 2.0 mi (3.2 km) upstream from Beaver Creek, and 2.2 mi (3.5 km) north of Downingtown.

DRAINAGE AREA.--60.6 mi² (157.0 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1948-57, October 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 270 ft (82 m), from topographic map. Prior to July 30, 1966, nonrecording gage at same site and datum.

REMARKS.--Records good except those for January and February, which are fair. Flow regulated by Marsh Creek Reservoir 1.9 mi (3.1 km) upstream (see p. 252).

AVERAGE DISCHARGE.--12 years, 88.3 ft³/s (2.501 m³/s), 19.79 in/yr (503 mm/yr), adjusted for storage since November 1973.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,070 ft³/s (229 m³/s) June 22, 1972, gage height, 12.06 ft (3.676 m), from floodmark, from rating curve extended above 5,000 ft³/s (140 m³/s); minimum, 7.2 ft³/s (0.20 m³/s) Sept. 2, 3, 11, 12, 13, 1966, gage height, 1.80 ft (0.549 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,970 ft³/s (55.8 m³/s) Mar. 22, gage height, 6.01 ft (1.832 m); minimum, 15 ft³/s (0.42 m³/s) July 19, gage height, 2.07 ft (0.631 m); minimum daily, 16 ft³/s (0.45 m³/s) July 23, 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60	104	44	45	35	92	113	79	43	29	19	157
2	44	85	46	44	34	82	180	78	63	28	31	63
3	205	79	41	43	35	73	161	76	41	26	22	69
4	101	77	41	42	36	150	113	74	37	25	25	44
5	79	71	40	43	35	183	788	93	36	25	20	37
6	70	65	40	42	34	109	221	91	42	30	21	33
7	63	62	271	43	33	94	159	84	45	50	23	32
8	57	59	121	49	33	100	172	78	38	36	20	27
9	352	56	88	49	34	125	177	76	54	32	19	25
10	133	55	81	61	35	112	166	70	65	27	24	24
11	99	53	76	78	54	74	161	65	49	23	57	22
12	83	52	74	59	104	44	154	60	44	23	28	20
13	73	51	68	50	162	240	164	58	41	23	31	19
14	65	50	60	44	125	309	177	55	41	21	35	19
15	59	49	60	46	99	174	140	54	50	20	36	19
16	55	48	58	50	79	182	121	52	42	20	27	18
17	51	47	58	48	63	159	135	52	39	19	29	25
18	49	48	55	47	57	151	126	51	40	18	31	23
19	45	46	52	46	56	105	90	55	39	18	24	32
20	162	46	54	45	55	93	58	54	39	19	22	131
21	314	45	70	44	52	99	61	49	40	19	20	43
22	112	44	57	42	48	688	63	48	36	18	51	40
23	92	43	55	40	57	268	65	46	33	16	30	36
24	84	42	52	38	224	207	74	45	27	16	27	35
25	96	42	54	40	323	180	124	45	27	19	28	103
26	148	42	52	39	136	169	140	45	35	23	24	72
27	93	43	52	39	114	161	130	43	29	18	22	59
28	82	43	51	40	111	154	86	42	37	17	21	67
29	76	60	49	39	---	151	95	40	50	17	20	46
30	70	53	47	38	---	144	84	40	32	18	19	40
31	177	---	46	36	---	137	---	41	---	18	106	---
TOTAL	3249	1660	2013	1409	2263	5009	4498	1839	1234	711	912	1380
MEAN	105	55.3	64.9	45.5	80.8	162	150	59.3	41.1	22.9	29.4	46.0
MAX	352	104	271	78	323	688	788	93	65	50	106	157
MIN	44	42	40	36	33	44	58	40	27	16	19	18
MEAN≠	110	52.1	64.1	45.0	87.3	156	151	55.7	42.4	21.1	33.5	46.2
CFSM≠	1.82	.86	1.06	.74	1.44	2.57	2.49	.92	.70	.35	.55	.76
IN.≠	2.10	.96	1.22	.85	1.50	2.96	2.78	1.06	.78	.40	.63	.85

CAL YR 1976 TOTAL 29231 MEAN 79.9 MAX 737 MIN 23 MEAN≠ 81.4 CFSM≠ 1.34 IN.≠ 18.29
WTR YR 1977 TOTAL 26177 MEAN 71.7 MAX 788 MIN 16 MEAN≠ 71.9 CFSM≠ 1.19 IN.≠ 16.10

≠ Adjusted for change in contents in Marsh Creek Reservoir.

01480700 EAST BRANCH BRANDYWINE CREEK NEAR DOWNINGTOWN, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1970 to current year.

COOPERATION.--Three water-quality analyses for the 1977 water year were furnished by the Pennsylvania Department of Environmental Resources.

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)
OCT 18...	1630	190	7.5	11.5	11.0	51	15	14	4.0	8.0

DATE	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)
OCT 18...	2.5	44	0	36	2.2	13	14	.1	15	103

DATE	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ORTHO PHOSPHORUS (P) (MG/L)
OCT 18...	92	1.3	.01	1.3	.25	.45	.70	2.0	.07	.06

DATE	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED CHROMIUM (CR) (UG/L)	DISSOLVED COBALT (CO) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	DISSOLVED NICKEL (NI) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
OCT 18...	1	<10	2	10	50	0	90	5	20

01480700 EAST BRANCH BRANDYWINE CREEK NEAR DOWNINGTOWN, PA--Continued

WATER-QUALITY DATA, NOVEMBER 1976 TO MAY 1977

DATE	TIME	CODE FOR AGENCY COL-LECTING SAMPLE	INSTAN-TANEOUS DIS-CHARGE (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (JTU)	HARD-NESS (CA,MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)
NOV 08...	0845	9813	60	160	6.0	2	75	0	0	16	8.7	42
FEB 08...	0900	9813	33	170	.0	1	56	0	0	12	6.5	36
MAY 02...	1400	9813	78	150	17.0	1	60	--	0	13	1.5	38

DATE	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	TOTAL FLUO-RIDE (F) (MG/L)	TOTAL FILT-RABLE RESIDUE (MG/L)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	TOTAL RESI-DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)	METHY-LENE ACTIVE SUB-STANCE (MG/L)
NOV 08...	6.0	16	<.1	98	14	112	2.1	.02	.15	.04	460	.00
FEB 08...	15	15	<.1	116	6	122	2.1	.02	.06	.05	220	--
MAY 02...	20	16	.0	100	0	--	1.9	.03	.20	.03	220	[illegible]

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA

LOCATION.--Lat 39°58'27", long 75°40'25", Chester County, Hydrologic Unit 02040205, on left bank at downstream side of Sugars Bridge (State Highway 322), 2,000 ft (610 m) upstream from Valley Creek, 1.5 mi (2.4 km) north of Marshallton, and 3.3 mi (5.3 km) southeast of Downingtown.

DRAINAGE AREA.--89.9 mi² (232.8 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1972 to current year.

REVISED RECORDS.--WDR PA-75-1: 1972(P), 1973, 1974.

GAGE.--Water-stage recorder Apr. 11, 1972 to June 22, 1972, Nov. 18, 1972 to present. Altitude of gage is 185 ft (56.4 m), from topographic map. Nonrecording gage Feb. 1 to Apr. 10, June 25 to Nov. 17, 1972.

REMARKS.--Records good except those for December and January, which are fair. Flow regulated by Marsh Creek Reservoir, about 7.5 mi (12.1 km) upstream since November 1973 (see p. 252).

AVERAGE DISCHARGE.--5 years, 152 ft³/s (4.30 m³/s), 23.02 in/yr (585 mm/yr), adjusted for storage since November 1973.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,160 ft³/s (231 m³/s) June 22, 1972, gage height, 13.4 ft (4.08 m), from floodmark, from rating curve extended above 2,200 ft³/s (62.3 m³/s) on basis of slope-area measurement of peak flow; minimum, 23 ft³/s (0.65 m³/s) July 23, 1977, gage height, 1.97 ft (0.600 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,220 ft³/s (62.9 m³/s) Mar. 22, gage height, 6.73 ft (2.051 m); minimum, 23 ft³/s (0.65 m³/s) July 23, gage height, 1.97 ft (0.600 m); minimum daily, 28 ft³/s (0.79 m³/s) July 23, 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	---	[illegible]	[illegible]	---	[illegible]	---	[illegible]	---	[illegible]	[illegible]	---
TOTAL	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MEAN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MAX	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MIN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

[illegible]

[illegible]

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1965 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: February 1972 to current year.
pH: February 1972 to current year.
WATER TEMPERATURES: February 1972 to current year.
DISSOLVED OXYGEN: February 1972 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 652 micromhos Feb. 6, 1977; minimum, 85 micromhos Apr. 13, 1974.
pH: Maximum, 9.0 May 13, June 5, 1973; minimum, 5.4 Oct. 24, 26, 1973.
WATER TEMPERATURES: Maximum, 33.0°C July 19, 1977; minimum, freezing point Jan. 22, 23, 1976.
DISSOLVED OXYGEN: Maximum, 16.3 mg/L Dec. 1, 1976; minimum, 1.1 mg/L Aug. 17, 1974.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 652 micromhos Feb. 6; minimum, 107 micromhos Aug. 22
pH: Maximum, 9.0 July 17, 18, 24; minimum, 6.7 Aug. 31, Sept. 1.
WATER TEMPERATURES: Maximum, 33.0°C July 19; minimum, 0.0°C on many days during Jan. and Feb.
DISSOLVED OXYGEN: Maximum, 16.3 mg/L Dec. 1; minimum, 2.6 mg/L Aug. 1.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	215	200	209	186	156	170	241	210	226	263	238	253
2	231	215	223	203	189	196	226	217	222	267	231	242
3	227	136	167	207	196	202	247	218	231	255	234	247
4	197	150	170	209	197	204	235	160	226	251	228	242
5	203	190	197	218	198	206	227	213	221	257	236	246
6	214	196	205	216	204	209	242	213	226	256	235	248
7	226	204	213	211	196	204	233	123	176	263	227	244
8	230	210	220	219	197	207	192	171	188	280	251	266
9	222	172	197	223	206	214	196	190	193	278	252	267
10	172	165	168	225	206	216	198	192	194	538	211	342
11	187	171	178	225	209	216	199	186	197	481	265	318
12	190	186	191	228	212	221	199	186	197	284	245	267
13	204	187	203	225	217	220	211	188	198	276	242	251
14	219	204	208	215	202	212	219	201	205	262	238	249
15	220	213	218	227	203	214	211	208	209	283	238	256
16	231	212	221	226	211	221	236	219	229	261	251	262
17	219	202	212	227	211	221	236	217	227	272	248	265
18	230	213	223	227	211	220	247	214	228	272	242	259
19	229	215	221	229	212	222	248	222	235	286	243	253
20	230	170	219	231	215	224	256	226	235	255	237	267
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MONTH	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	538	[illegible]	[illegible]

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	260	252	260	221	209	215	223	194	198	---	---	---
2	267	246	257	220	209	214	228	150	201	---	---	---
3	271	254	262	220	208	215	193	153	172	218	210	213
4	272	244	258	220	204	213	215	192	202	223	214	219
5	311	256	272	208	195	202	---	---	---	221	202	208
6	652	263	320	208	197	204	182	169	177	214	200	207
7	290	262	276	219	201	211	189	181	185	214	201	209
8	291	258	276	218	198	211	190	181	185	209	199	203
9	283	259	273	210	201	204	190	180	184	221	203	213
10	332	267	276	211	203	207	184	180	182	222	209	216
11	320	273	291	257	204	218	189	181	185	232	212	221
12	289	242	263	261	238	248	190	182	186	235	224	230
13	237	187	219	244	147	197	187	179	183	235	222	228
14	209	185	197	191	138	165	186	180	182	236	223	230
15	214	195	206	201	190	195	196	183	186	227	213	221
16	223	208	215	198	191	194	198	187	193	238	214	227
17	239	216	228	202	193	197	193	188	190	241	226	234
18	253	224	238	206	195	198	196	188	191	241	226	234
19	266	237	241	215	197	207	206	191	195	240	223	231
20	248	223	235	219	206	213	211	202	206	240	222	232
21	263	226	248	225	203	213	216	208	211	230	214	223
22	256	225	243	---	---	---	221	215	217	233	215	225
23	238	222	229	177	164	171	222	217	220	248	218	233
24	233	178	212	198	178	184	---	---	---	245	233	239
25	196	169	183	193	185	190	---	---	---	244	228	237
26	212	193	202	195	188	192	---	---	---	245	229	238
27	213	206	209	193	185	190	---	---	---	253	236	244
28	215	201	209	201	187	195	---	---	---	262	248	252
29	---	---	---	204	182	196	---	---	---	241	225	234
30	---	---	---	198	183	194	---	---	---	248	225	236
31	---	---	---	203	191	196	---	---	---	262	226	245
MONTH	652	169	243	261	138	202	228	150	192	262	199	227

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MONTH	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA--Continued

PH (UNITS), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.6	7.3	7.4	7.5	7.2	7.4	8.0	7.5	7.7	7.8	7.5	7.6
2	7.6	7.4	7.5	7.6	7.4	7.5	8.0	7.4	7.6	7.8	7.5	7.6
3	7.4	7.3	7.3	7.6	7.4	7.5	8.0	7.5	7.7	7.8	7.5	7.6
4	7.5	7.3	7.4	7.6	7.4	7.5	8.0	7.5	7.7	8.0	7.5	7.7
5	7.6	7.4	7.5	7.6	7.4	7.5	7.9	7.5	7.6	7.8	7.4	7.6
6	7.6	7.4	7.5	7.6	7.4	7.5	8.0	7.5	7.6	7.9	7.5	7.6
7	7.7	7.4	7.5	7.6	7.4	7.5	7.5	7.1	7.3	7.8	7.5	7.6
8	7.6	7.4	7.5	7.7	7.4	7.6	7.5	7.3	7.4	7.9	7.5	7.6
9	7.6	7.3	7.5	7.7	7.5	7.6	7.5	7.3	7.5	7.8	7.5	7.6
10	7.5	7.5	7.5	7.7	7.4	7.5	7.5	7.5	7.5	7.6	7.4	7.5
11	7.6	7.5	7.6	7.7	7.4	7.5	7.5	7.5	7.5	7.6	7.4	7.5
12	7.7	7.6	7.6	7.8	7.4	7.5	7.5	7.5	7.5	7.8	7.4	7.5
13	7.7	7.6	7.7	7.8	7.5	7.6	7.6	7.5	7.6	7.8	7.1	7.6
14	7.7	7.7	7.7	7.8	7.5	7.6	7.6	7.6	7.6	7.7	7.4	7.5
15	7.7	7.5	7.6	7.9	7.5	7.7	7.6	7.6	7.6	7.8	7.4	7.6
16	7.8	7.4	7.6	7.9	7.5	7.7	7.6	7.4	7.5	7.8	7.5	7.6
17	7.7	7.4	7.5	8.0	7.5	7.7	7.7	7.4	7.5	7.7	7.4	7.5
18	7.8	7.3	7.6	8.0	7.5	7.7	7.8	7.5	7.6	7.6	7.4	7.5
19	7.7	7.5	7.6	8.0	7.5	7.7	7.8	7.5	7.6	7.6	7.3	7.4
20	7.5	7.3	7.4	8.2	7.5	7.8	7.7	7.4	7.5	7.7	7.3	7.4
21	7.3	7.1	7.2	8.2	7.5	7.8	7.8	7.4	7.6	7.7	7.3	7.4
22	7.5	7.2	7.4	8.3	7.5	7.8	7.8	7.5	7.6	7.7	7.3	7.5
23	7.4	7.3	7.4	8.2	7.5	7.8	7.7	7.5	7.6	7.8	7.3	7.5
24	7.4	7.2	7.3	8.3	7.5	7.8	7.8	7.5	7.6	7.7	7.3	7.5
25	7.4	7.2	7.3	8.3	7.4	7.8	7.8	7.5	7.6	7.8	7.3	7.5
26	7.4	7.3	7.3	8.2	7.4	7.7	7.8	7.5	7.6	7.8	7.4	7.5
27	7.5	7.4	7.4	8.4	7.3	7.7	7.7	7.5	7.6	7.9	7.4	7.6
28	7.5	7.4	7.4	8.4	7.3	7.7	7.8	7.4	7.6	7.9	7.4	7.6
29	7.5	7.4	7.4	8.0	7.3	7.5	7.9	7.4	7.6	7.8	7.4	7.6
30	7.6	7.4	7.5	8.2	7.5	7.7	7.9	7.5	7.6	7.8	7.4	7.5
31	7.4	7.2	7.3	---	---	---	7.8	7.5	7.6	7.8	7.0	7.5
MONTH	7.8	7.1	7.5	8.4	7.2	7.6	8.0	7.1	7.6	8.0	7.0	7.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	7.8	7.4	7.6	7.7	7.5	7.6	8.6	7.4	7.9	---	---	---
2	7.8	7.4	7.6	7.7	7.4	7.6	7.7	7.2	7.5	---	---	---
3	7.8	7.4	7.6	7.8	7.5	7.6	8.3	7.2	7.5	8.9	7.5	8.4
4	8.0	7.4	7.6	7.5	7.2	7.4	7.8	7.3	7.5	7.9	7.3	7.5
5	8.1	7.6	7.7	7.5	7.2	7.3	---	---	---	8.0	7.3	7.7
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	---	---	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	---	---	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	---	---	[illegible]	[illegible]	[illegible]
29	---	---	---	[illegible]	[illegible]	[illegible]	---	---	---	[illegible]	[illegible]	[illegible]
30	---	---	---	[illegible]	[illegible]	[illegible]	---	---	---	[illegible]	[illegible]	[illegible]
31	---	---	---	[illegible]	[illegible]	[illegible]	---	---	---	[illegible]	[illegible]	[illegible]
MONTH	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA--Continued

PH (UNITS), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	7.3	7.1	7.2	7.7	7.3	7.4	7.8	7.1	7.2	7.0	6.7	6.9
2	7.2	7.0	7.1	8.1	7.3	7.6	7.5	7.0	7.1	7.5	7.0	7.2
3	7.3	7.0	7.2	8.1	7.3	7.6	7.2	7.0	7.1	7.5	7.1	7.2
4	7.4	7.1	7.2	8.0	7.3	7.6	7.6	7.0	7.2	7.6	7.1	7.3
5	7.3	7.0	7.1	8.0	7.2	7.6	7.8	7.0	7.2	7.5	7.1	7.2
6	7.2	7.0	7.1	8.2	7.1	7.5	7.8	7.0	7.2	7.8	7.1	7.3
7	7.3	7.1	7.2	7.5	7.1	7.2	7.6	7.0	7.2	8.0	7.2	7.5
8	7.2	7.1	7.2	8.1	7.2	7.5	7.8	7.0	7.2	7.9	7.2	7.5
9	7.1	7.0	7.1	8.1	7.2	7.5	8.1	7.1	7.4	8.0	7.2	7.5
10	7.4	6.9	7.2	8.5	7.2	7.7	7.8	7.0	7.3	8.0	7.2	7.5
11	7.6	7.3	7.4	8.5	7.2	7.7	7.3	7.0	7.1	8.2	7.2	7.5
12	7.6	7.2	7.4	8.6	7.2	7.7	7.4	6.9	7.1	8.2	7.3	7.6
13	7.6	7.2	7.3	8.7	7.2	7.8	7.4	7.1	7.2	8.3	7.3	7.7
14	7.5	7.2	7.3	8.6	7.2	7.6	7.2	7.0	7.1	8.1	7.2	7.5
15	7.4	7.1	7.2	8.7	7.1	7.7	7.1	6.9	7.0	8.2	7.2	7.6
16	7.7	7.1	7.3	8.9	7.2	7.9	7.0	6.9	6.9	7.8	7.2	7.4
17	7.7	7.2	7.4	9.0	7.2	7.9	7.1	6.9	7.0	7.8	7.1	7.3
18	7.7	7.2	7.4	9.0	7.2	7.9	7.2	7.0	7.1	8.2	7.1	7.4
19	7.7	7.1	7.3	8.9	7.2	7.9	7.2	7.0	7.1	8.1	7.1	7.5
20	7.7	7.1	7.3	8.6	7.2	7.7	7.3	7.0	7.1	7.3	6.8	7.0
21	7.8	7.2	7.4	8.8	7.2	7.8	7.5	7.1	7.3	7.4	7.0	7.2
22	8.0	7.3	7.5	8.8	7.2	7.7	7.2	6.8	7.0	7.4	7.1	7.2
23	8.0	7.3	7.5	8.8	7.3	7.8	7.3	7.0	7.1	7.4	7.2	7.3
24	8.1	7.3	7.6	9.0	7.3	7.9	7.3	7.0	7.1	7.4	7.2	7.3
25	7.7	7.2	7.4	8.4	7.2	7.5	7.3	7.0	7.1	7.2	7.0	7.1
26	7.3	7.0	7.2	8.3	7.1	7.5	7.4	7.1	7.2	7.3	7.1	7.2
27	7.9	7.2	7.4	8.6	7.2	7.8	8.0	7.1	7.4	7.4	7.1	7.2
28	7.6	6.9	7.3	8.4	7.2	7.5	8.3	7.2	7.5	7.3	7.1	7.2
29	7.3	6.9	7.2	8.3	7.2	7.5	8.4	7.1	7.5	7.5	7.2	7.3
30	7.7	7.2	7.4	7.9	7.2	7.4	8.5	7.1	7.6	7.6	7.2	7.4
31	---	---	---	8.5	7.1	7.5	8.6	6.7	7.4	---	---	---
MONTH	8.1	6.9	7.3	9.0	7.1	7.6	8.6	6.7	7.2	8.3	6.7	7.3

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12	[illegible]	[illegible]	[illegible]	---	---	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13	[illegible]	[illegible]	[illegible]	---	---	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	---	---	---	---	---	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	[illegible]	[illegible]	[illegible]	---	---	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16	[illegible]	[illegible]	[illegible]	---	---	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	---	---	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	[illegible]	[illegible]	[illegible]	---	---	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]	---	---	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	---	---	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MONTH	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	1.0	1.0	1.0	6.5	3.5	5.0	14.5	9.5	12.0	---	---	---
2	1.0	0.5	1.0	7.0	3.5	5.5	11.5	9.5	10.0	---	---	---
3	1.0	1.0	1.0	8.0	3.0	6.0	16.5	10.0	13.5	21.5	18.5	20.5
4	3.0	1.0	2.0	8.5	6.5	7.5	14.0	9.5	11.0	19.0	15.0	16.0
5	3.5	0.5	2.0	10.5	6.5	8.5	---	---	---	19.0	14.5	16.5
6	3.5	0.5	1.0	8.5	7.0	8.0	11.0	9.0	10.5	22.0	17.0	19.5
7	1.0	0.5	1.0	8.5	5.5	7.0	11.5	6.5	9.0	20.5	19.0	19.5
8	1.0	0.5	1.0	9.0	5.0	7.5	12.0	8.5	10.0	20.0	15.0	18.0
9	1.5	0.5	1.0	10.5	5.0	7.5	12.0	8.0	10.0	18.0	12.5	14.0
10	5.0	1.0	2.5	11.0	6.0	8.5	13.0	9.5	11.0	15.0	11.0	13.0
11	5.5	1.5	2.5	12.5	6.5	10.0	14.5	11.0	12.5	18.0	12.5	15.0
12	4.0	1.0	2.0	13.5	10.0	12.0	16.0	12.0	14.0	19.5	13.5	17.0
13	3.5	1.5	2.0	13.5	11.5	13.0	16.5	13.0	14.5	22.5	17.0	19.5
14	4.0	1.0	2.5	12.0	10.0	11.0	16.0	13.5	14.5	22.0	17.0	19.5
15	4.5	2.0	3.0	13.5	9.0	11.0	16.0	13.0	14.5	21.0	15.0	18.0
16	3.5	0.5	2.0	12.5	8.5	10.5	16.5	13.5	15.0	21.0	15.5	18.0
17	3.0	0.5	1.5	11.5	7.5	9.5	16.0	13.5	14.5	23.0	16.5	20.0
18	3.5	0.5	2.0	9.0	7.5	8.0	16.5	13.5	15.0	24.5	19.5	22.0
19	5.0	2.5	3.5	10.0	6.0	8.0	16.0	14.5	15.5	23.0	20.5	22.0
20	4.0	3.0	3.5	8.0	6.0	7.0	17.0	15.0	16.0	24.5	19.5	22.0
21	4.5	1.0	2.5	10.5	5.5	8.0	17.5	15.5	16.5	25.5	20.5	23.0
22	4.5	0.5	2.5	---	---	---	18.5	16.5	17.5	25.5	20.0	22.5
23	7.0	3.0	5.0	9.5	7.5	8.5	19.5	18.0	18.5	24.5	20.5	22.5
24	6.5	4.0	5.0	9.5	6.0	7.5	---	---	---	25.0	21.0	23.0
25	6.5	3.0	5.0	9.0	4.5	6.5	---	---	---	23.5	21.5	22.5
26	7.5	4.0	6.0	10.5	5.0	8.0	---	---	---	26.0	20.0	23.0
27	9.5	5.0	7.5	12.0	6.0	9.0	---	---	---	26.0	19.5	22.5
28	8.5	5.0	6.5	10.0	8.5	9.0	---	---	---	26.5	19.5	23.0
29	---	---	---	15.5	8.5	12.0	---	---	---	25.0	21.0	22.5
30	---	---	---	18.0	11.5	14.5	---	---	---	21.5	18.5	19.5
31	---	---	---	15.0	12.0	13.5	---	---	---	19.5	18.0	18.5
MONTH	9.5	0.5	3.0	18.0	3.0	9.0	19.5	6.5	13.5	26.5	11.0	19.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	---	---	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	---	---
MONTH	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA--Continued

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	10.1	9.1	9.7	12.6	11.3	12.0	16.3	13.6	14.7	15.2	12.9	14.0
2	10.0	8.9	9.3	13.4	12.0	12.6	15.6	13.3	14.1	15.2	13.7	14.3
3	10.1	8.9	9.6	12.6	11.1	12.0	16.1	12.9	14.5	15.2	13.7	14.3
4	10.1	9.7	9.8	11.7	10.7	11.1	16.1	13.1	14.6	15.1	13.3	14.0
5	---	---	---	11.3	10.5	10.9	16.1	13.6	14.6	14.5	13.0	13.7
6	10.6	9.3	9.9	11.1	9.8	10.5	14.0	11.3	13.0	14.7	12.7	13.6
7	10.8	8.8	9.7	---	---	---	13.3	10.0	11.1	14.3	12.5	13.2
8	10.1	8.6	9.2	13.7	12.6	13.2	12.3	11.9	12.0	14.6	12.4	13.5
9	---	---	---	14.1	12.1	13.1	13.3	11.8	12.5	14.7	12.8	13.6
10	---	---	---	13.0	11.0	12.2	12.8	12.2	12.6	13.1	12.6	12.8
11	---	---	---	11.7	10.0	11.0	12.5	12.0	12.3	14.3	12.7	13.6
12	---	---	---	10.9	9.4	10.1	12.2	11.6	11.9	14.7	13.1	14.0
13	---	---	---	11.9	9.3	10.7	12.2	11.5	11.9	15.1	13.5	14.2
14	---	---	---	13.9	11.3	12.6	12.2	11.7	11.9	15.0	12.9	13.7
15	11.5	9.8	10.8	14.4	12.3	13.2	11.8	11.5	11.6	14.4	12.6	13.3
16	11.4	9.6	10.4	14.6	12.2	13.2	14.4	12.9	13.8	14.8	12.[illegible]	13.8
17	11.9	10.0	10.9	14.8	12.4	13.4	14.4	12.9	13.6	14.6	13.[illegible]	13.9
18	12.6	10.8	11.5	14.3	11.9	12.8	14.9	13.0	13.7	14.4	12.[illegible]	13.3
19	13.1	11.1	11.9	14.3	11.5	12.7	15.1	13.0	13.9	14.5	12.[illegible]	13.0
20	11.2	9.7	10.8	14.7	11.5	12.8	14.3	12.0	13.1	14.5	12.[illegible]	13.1
21	11.4	9.2	10.5	15.1	11.0	13.1	14.3	11.8	12.5	14.6	12.[illegible]	13.3
22	10.7	9.5	10.1	15.1	11.9	13.3	13.2	11.7	12.6	14.7	12.[illegible]	13.3
23	10.6	9.7	10.2	15.6	12.5	13.8	13.4	12.1	12.7	15.0	12.[illegible]	13.5
24	---	---	---	16.0	12.7	13.9	13.9	12.3	13.1	14.5	12.[illegible]	13.3
25	11.6	10.7	11.1	15.7	12.5	13.7	14.8	12.9	13.9	13.9	12.[illegible]	12.8
26	11.4	10.6	11.0	15.6	12.0	13.7	14.6	13.5	13.9	14.2	12.2	13.0
27	12.6	11.3	12.0	14.0	11.1	12.5	14.9	13.3	13.9	14.4	12.2	13.0
28	13.3	11.8	12.4	14.7	10.9	12.3	14.9	13.2	14.0	14.5	12.1	13.1
29	13.2	11.9	12.6	13.9	10.7	12.0	15.2	13.2	13.9	14.6	12.2	13.4
30	13.5	11.9	12.6	16.1	12.4	14.2	15.3	13.4	14.2	14.6	12.4	13.3
31	11.9	10.4	11.5	---	---	---	15.4	13.6	14.3	14.5	12.4	13.2
MONTH	13.5	8.6	10.8	16.1	9.3	12.5	16.3	10.0	13.2	15.2	12.0	13.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	[illegible]	[illegible]	[illegible]	---	---	---	12.2	9.1	10.5	---	--	---
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	--	---
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	---	---	[illegible]	[illegible]	[illegible]
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	---	---	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	---	---	[illegible]	[illegible]	[illegible]
25	---	---	---	[illegible]	[illegible]	[illegible]	---	---	---	[illegible]	[illegible]	[illegible]
26	---	---	---	[illegible]	[illegible]	[illegible]	---	---	---	[illegible]	[illegible]	[illegible]
27	---	---	---	[illegible]	[illegible]	[illegible]	---	---	---	[illegible]	[illegible]	[illegible]
28	---	---	---	[illegible]	[illegible]	[illegible]	---	---	---	[illegible]	[illegible]	[illegible]
29	---	---	---	[illegible]	[illegible]	[illegible]	---	---	---	[illegible]	[illegible]	[illegible]
30	---	---	---	[illegible]	[illegible]	[illegible]	---	---	---	[illegible]	[illegible]	[illegible]
31	---	---	---	[illegible]	[illegible]	[illegible]	---	---	---	[illegible]	[illegible]	[illegible]
MONTH	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA--Continued

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	7.6	5.7	6.5	8.6	2.6	4.6	7.5	6.8	7.3
2	---	---	---	8.5	5.8	6.9	7.5	3.4	5.1	8.5	6.1	7.2
3	---	---	---	9.0	6.1	7.3	6.1	3.3	4.7	8.2	5.8	6.9
4	---	---	---	8.9	6.2	7.4	7.8	3.0	5.2	8.8	6.1	7.2
5	---	---	---	9.4	5.7	7.4	7.6	2.7	4.7	8.6	6.1	6.9
6	---	---	---	9.2	5.4	6.8	7.7	2.7	4.7	9.0	5.8	7.0
7	---	---	---	7.6	5.7	6.6	7.5	3.7	5.2	9.2	5.6	6.9
8	---	---	---	8.7	5.6	6.9	8.1	3.1	5.1	10.2	5.7	7.6
9	---	---	---	8.8	5.4	6.8	9.6	2.9	5.3	10.4	6.6	7.9
10	8.4	7.6	8.1	9.8	5.6	7.2	9.0	3.4	5.4	9.9	6.2	7.5
11	8.5	6.8	7.8	10.0	5.5	7.3	7.7	4.2	6.0	10.5	6.1	7.8
12	8.7	7.0	7.8	10.8	5.3	7.0	7.2	4.2	5.5	11.4	6.8	8.4
13	8.7	6.8	7.7	11.0	5.0	7.1	7.3	4.8	5.8	12.0	6.2	8.3
14	8.8	7.0	7.6	10.6	4.5	6.7	6.2	4.7	5.4	10.7	5.8	7.6
15	8.6	7.0	7.7	11.0	4.3	6.8	7.1	4.1	5.8	11.9	6.1	8.3
16	8.4	6.2	7.4	11.8	4.4	7.2	6.2	3.5	4.7	10.3	5.8	7.4
17	8.4	6.0	6.9	11.6	4.1	6.9	5.1	3.2	4.2	9.6	5.6	7.1
18	8.2	5.5	6.7	12.0	3.7	6.8	6.7	4.6	5.6	10.6	5.8	7.6
19	8.0	5.5	6.5	11.0	3.6	6.2	7.4	4.5	5.7	10.6	5.5	7.4
20	8.2	5.3	6.2	9.3	3.3	5.5	7.8	4.8	6.0	7.1	5.2	6.6
21	8.3	5.7	6.9	9.3	3.4	5.6	9.2	5.1	6.9	8.6	6.3	7.2
22	8.7	6.1	7.1	10.9	3.9	6.4	6.6	5.5	6.2	8.3	6.7	7.4
23	8.8	5.7	6.9	11.8	4.2	7.0	7.5	5.0	6.2	8.7	7.2	7.7
24	8.8	5.5	6.8	12.2	4.4	7.4	7.8	4.3	5.2	8.6	7.1	7.6
25	7.7	5.2	6.3	9.7	3.9	5.7	7.9	4.5	6.1	8.4	7.2	8.1
26	---	---	---	9.4	4.1	6.1	8.5	5.1	6.5	8.6	7.4	8.1
27	8.2	5.3	6.7	10.9	4.4	6.7	10.2	5.1	7.2	8.6	6.8	7.7
28	7.7	5.2	6.3	10.6	3.5	6.2	10.9	4.9	7.1	8.3	6.9	7.6
29	6.7	5.6	6.3	10.2	3.3	5.8	11.4	4.6	7.0	9.7	7.0	8.3
30	7.8	5.6	6.5	8.9	2.8	4.7	11.7	4.3	7.0	9.8	7.3	8.4
31	---	---	---	10.5	3.1	5.8	12.5	4.2	7.0	---	---	---
MONTH	8.8	5.2	7.0	12.2	2.8	6.6	12.5	2.6	5.7	12.0	5.2	7.6

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA

LOCATION.--Lat 39°52'11", long 75°35'37", Delaware County, Hydrologic Unit 02040205, on left bank 27 ft (8 m) upstream from Penn Central Railroad bridge at Chadds Ford, 150 ft (46 m) upstream from Harvey Run and 1,200 ft (370 m) downstream from highway bridge on U.S. Highway 1.

DRAINAGE AREA.--287 mi² (743 km²), including that of Harvey Run.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD--August 1911 to December 1953, October 1962 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 756: Drainage area. WSP 1202: 1919-20, 1932-33, 1936, 1938(P), 1942, (maximum only, 1917-18, 1922-31, 1934, 1939, 1944-46). WDR PA-72: 1971.

GAGE.--Water-stage recorder. Datum of gage is 150.45 ft (45.857 m) above mean sea level. Prior to May 21, 1927, nonrecording gage at same site and datum.

REMARKS.--Records good except those December through February, which are fair. Flow regulated by Marsh Creek Reservoir (see p. 252) about 17 mi (27 km) upstream.

AVERAGE DISCHARGE.--57 years, (1911-53, 1962-77), 388 ft³/s (11.0 m³/s), 18.38 in/yr (467 mm/yr), adjusted for storage since November 1973.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,800 ft³/s (674 m³/s) June 22, 1972, gage height, 16.56 ft (5.047 m) from rating curve extended above 9,000 ft³/s (255 m³/s) on basis of area-velocity study; minimum, 4.9 ft³/s (0.14 m³/s) Oct. 2, 1941, gage height, 0.28 ft (0.085 m); minimum daily, 42 ft³/s (1.19 m³/s) Sept. 12, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,240 ft³/s (148 m³/s) Mar. 23, gage height, 8.82 ft (2.688 m); minimum, 94 ft³/s (2.66 m³/s) Aug. 1, gage height, 1.35 ft (0.411 m); minimum daily, 103 ft³/s (2.92 m³/s) July 23, 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	332	593	201	186	150	342	394	337	217	206	110	781
2	245	400	206	183	150	312	620	329	523	188	193	263
3	676	350	188	182	160	284	840	333	219	172	197	236
4	450	320	185	184	180	386	461	317	184	164	223	193
5	263	290	180	188	160	783	3310	378	180	164	144	168
6	236	275	180	184	150	420	1290	398	193	164	160	180
7	223	265	966	184	150	354	764	363	223	272	267	197
8	210	250	646	193	150	324	671	315	184	210	144	147
9	1210	240	318	193	170	349	631	306	259	176	129	140
10	754	235	281	450	200	336	587	295	454	168	129	140
11	356	225	263	607	300	305	557	281	265	160	323	129
12	281	220	267	337	700	295	533	272	206	168	184	117
13	254	215	259	265	900	898	509	259	188	164	172	114
14	236	210	219	227	800	1040	521	254	188	147	201	110
15	219	205	227	227	600	952	470	250	223	140	227	110
16	214	202	232	214	484	490	430	246	197	132	164	180
17	206	200	223	201	358	430	443	245	180	132	206	164
18	201	195	214	195	277	484	426	241	197	125	267	151
19	197	192	210	180	249	452	405	268	176	129	160	129
20	210	190	210	180	256	370	356	246	180	125	140	484
21	1720	190	281	180	232	301	361	236	193	125	120	219
22	567	188	197	170	207	1040	363	224	160	116	501	176
23	400	188	219	170	236	2330	337	213	160	103	210	168
24	300	193	201	170	686	736	363	215	151	103	186	172
25	290	201	201	180	1090	585	520	207	144	121	216	440
26	599	201	219	180	586	532	483	209	332	186	180	384
27	350	206	236	180	482	492	457	195	201	120	160	238
28	300	201	206	170	484	472	360	191	456	110	132	206
29	270	256	201	160	---	440	416	183	1500	110	129	216
30	260	250	195	150	---	440	390	182	263	106	121	170
31	795	---	190	150	---	422	---	185	---	116	272	---
TOTAL	12932	7203	8061	6620	11117	16060	18180	8175	8176	4629	5962	6430
MEAN	417	240	260	214	397	518	606	264	273	149	192	214
MAX	1720	593	966	607	1090	2330	3310	398	1500	272	501	781
MIN	197	188	180	150	150	284	337	182	144	103	110	110
MEAN#	422	241	259	213	404	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
CFSM#	1.47	.84	.90	.74	1.41	[illegible]	[illegible]	.92	.95	[illegible]	.68	.75
IN.#	1.70	.94	1.04	.86	1.47	[illegible]	[illegible]	1.05	1.06	.58	.78	.84

CAL YR 1976 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] MEAN# [illegible] CFSM# [illegible] IN.# [illegible]
WTR YR 1977 TOTAL [illegible] MEAN [illegible] MAX 3310 MIN 103 MEAN# [illegible] CFSM# [illegible] IN.# [illegible]

# Adjusted for change in contents in Marsh Creek Reservoir.

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--July 1963 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1965 to current year.
pH: October 1965 to September 1966, December 1971 to current year.
WATER TEMPERATURES: October 1964 to current year.
DISSOLVED OXYGEN: October 1971 to current year.
SUSPENDED SEDIMENT DISCHARGE: July 1963 to current year.

REMARKS.--Unpublished records of specific conductance, pH, and temperature of sediment samples available in the district office at Harrisburg. Sediment data from 01481500 Brandywine Creek at Wilmington, Del., are used in computation of sediment records.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 445 micromhos Oct. 25, 1971; minimum, 71 micromhos June 23, 1972.
pH: Maximum, 9.8 Apr. 9, 1975; minimum, 6.1 Feb. 22, 1976.
WATER TEMPERATURES: Maximum, 31.0°C Jul. 18, 19, 1977; minimum daily, freezing point on many days during winter months.
DISSOLVED OXYGEN: Maximum, 17.1 mg/L Dec. 5, 1976; minimum 4.7 mg/L July 10, 1975.
SEDIMENT CONCENTRATIONS: Maximum daily, 2,000 mg/L (estimated) Feb. 8, 1965; minimum daily, 1 mg/L on many days.
SEDIMENT DISCHARGES: Maximum daily, 20,000 tons (18,100 tonnes) (estimated) Feb. 8, 1965; minimum daily, 0 ton (0 tonne) on Oct. 7, 8, 1967.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum 420 micromhos Jan. 11; minimum, 100 micromhos Jun. 29.
pH: Maximum 9.0 Apr. 21-23, May 1; minimum, 6.6 Jun. 29.
WATER TEMPERATURES: Maximum, 31.0°C Jul. 18, 19; minimum, freezing point on many days during December and January.
DISSOLVED OXYGEN: Maximum, 17.1 mg/L Dec. 5; minimum, 5.2 mg/L Jun. 29.
SEDIMENT CONCENTRATIONS: Maximum daily, 1280 mg/L Feb. 25; minimum daily, 1 mg/L on several days during November.
SEDIMENT DISCHARGES: Maximum daily, 9,330 tons (8,460 tonnes) Feb. 25; minimum daily, 0.52 ton (0.47 tonne) Nov. 19.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)
OCT 19...	1345	82	31	20	7.7	11	3.0	62	0	51	2.0	23

DATE	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL ORGANIC NITRO-GEN (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)
OCT 19...	17	.1	13	136	126	2.6	.04	2.6	.10	.42	.60	3.3

DATE	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL ORTHO PHOS-PHORUS (P) (MG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
OCT 19...	[illegible]	[illegible]	1	<10	0	3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	FECAL COLIFORM .7UM-MF (COL./100 ML)	TOTAL ORGANIC CARBON (C) (MG/L)
OCT								
01...	0930	400	266	7.4	14.0	9.8	200	28
08...	1300	219	277	7.4	18.0	9.2	18	4.7
15...	1000	250	274	7.5	11.5	10.2	133	2.8
19...	1345	198	270	7.7	9.5	11.6	420	--
21...	1530	264	173	6.9	11.3	10.4	600	12
29...	0900	585	261	7.4	5.5	12.6	300	5.2
NOV								
15...	1130	205	273	7.6	4.0	13.9	85	3.8
2[illegible]...	0900	224	259	7.7	1.5	14.3	250	4.0
29...	1500	309	253	7.7	7.5	11.9	240	3.4
DEC								
09...	1400	351	196	7.4	.5	14.4	340	--
15...	1430	236	222	7.6	.5	15.6	--	3.0
22...	1530	259	219	7.5	1.5	13.6	500	22
28...	1400	224	258	7.5	.5	15.1	--	--
JAN								
05...	0930	182	230	7.5	.0	13.6	811	--
1[illegible]...	0915	230	279	7.3	.5	14.0	164	4.5
19...	1130	143	258	7.2	.0	13.4	550	--
24...	1130	237	254	7.3	.5	12.8	80	3.2
FEB								
0[illegible]...	0900	224	256	7.3	.5	12.4	330	2.4
09...	1130	206	250	7.4	.5	13.6	77	8.1
16...	0845	645	204	7.5	.5	12.8	--	3.0
2[illegible]...	1000	300	230	7.4	4.5	11.8	490	4.0
MAR								
0[illegible]...	1000	309	212	7.4	5.0	12.1	440	8.3
15...	1230	550	190	7.1	10.5	10.0	733	--
2[illegible]...	1445	725	188	7.3	7.5	11.5	1000	--
31...	1130	420	201	7.5	16.5	9.6	--	4.1
APR								
08...	1045	1320	156	7.1	8.5	10.8	440	3.7
14...	1355	540	189	8.4	17.0	11.3	480	5.6
20...	1345	352	205	8.4	16.5	11.8	--	1.9
29...	0945	420	200	7.6	12.5	9.6	330	7.9
MAY								
0[illegible]...	1000	333	205	7.9	16.0	9.5	220	4.8
17...	1245	268	215	7.6	15.5	10.0	--	5.7
25...	0930	206	228	7.2	22.5	6.9	220	4.0
31...	1240	193	224	6.9	19.0	8.0	290	7.0
JUN								
10...	1200	500	195	7.2	17.0	7.6	--	6.3
14...	1240	210	230	7.3	22.0	8.0	210	5.6
21...	1330	185	229	7.6	23.5	8.5	--	5.9
30...	1415	275	197	7.0	24.5	7.1	--	6.0
JUL								
07...	0930	328	265	7.2	24.5	6.4	73	8.4
14...	1130	164	249	7.6	27.0	8.0	--	5.1

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	FECAL COLIFORM .7UM-MF (COL./100 ML)	TOTAL ORGANIC CARBON (C) (MG/L)
JUL								
20...	1030	111	259	7.6	27.5	6.6	106	6.7
27...	1400	111	266	7.6	26.0	8.7	220	5.2
AUG								
03...	1030	140	263	7.1	26.0	6.4	300	6.7
11...	1315	361	260	7.1	26.5	6.5	6800	6.1
17...	1100	156	261	7.2	25.2	6.6	8600	7.1
24...	1130	241	208	7.3	21.0	7.8	6100	6.5
31...	1015	114	227	7.0	26.0	7.7	1400	6.0
SEP								
07...	1430	190	166	7.0	24.0	6.0	7200	7.0
13...	1130	111	253	7.5	20.0	8.0	--	10
21...	1400	215	183	7.2	22.0	7.9	4000	11
28...	0930	215	223	7.0	17.5	8.2	310	15

CHRISTINA RIVER BASIN

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	269	196	250	224	191	205	256	243	250	250	231	235
2	256	247	253	248	224	240	269	256	262	254	243	248
3	277	188	241	254	246	249	271	248	264	247	233	237
4	225	190	214	256	248	251	283	245	268	235	225	228
5	249	225	239	255	249	252	280	242	270	233	223	229
6	262	247	256	258	251	253	284	230	267	237	229	234
7	273	259	267	260	253	257	260	178	230	240	230	236
8	284	263	274	260	250	255	215	180	198	234	226	229
9	280	169	234	258	248	254	232	196	215	270	235	252
10	215	173	189	261	254	258	217	208	212	316	235	255
11	243	212	231	263	253	258	213	208	211	420	321	373
12	257	241	250	267	253	260	214	209	212	356	277	296
13	263	253	259	267	256	260	218	210	213	285	257	272
14	268	259	264	273	258	268	217	209	213	263	245	255
15	280	263	272	275	258	266	226	214	220	245	230	236
16	278	268	273	260	253	256	224	217	221	255	230	244
17	276	265	272	262	256	258	223	217	220	305	255	284
18	280	265	271	263	254	259	220	215	217	270	250	258
19	276	265	271	268	255	262	222	216	219	261	251	257
20	276	268	271	263	253	258	230	218	224	252	245	248
21	189	174	185	262	254	258	220	216	220	245	238	241
22	231	189	211	267	258	263	253	214	231	247	236	243
23	247	230	240	266	256	258	238	225	230	251	235	242
24	255	246	251	264	256	259	233	225	229	254	234	247
25	262	248	256	265	258	261	254	227	234	238	230	234
26	248	221	238	266	251	260	230	212	222	281	237	256
27	241	214	226	261	250	255	232	196	221	356	277	307
28	256	240	249	259	250	256	268	228	241	277	253	262
29	262	254	258	255	245	250	240	228	235	257	245	252
30	261	253	258	252	243	247	246	195	233	275	248	266
31	258	196	233	---	---	---	245	232	238	269	259	264
MONTH	284	169	247	275	191	255	284	178	230	420	223	255

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	264	246	256	219	211	216	208	199	203	211	198	201
2	251	243	247	217	208	212	208	184	201	207	198	201
3	252	240	246	215	207	212	183	159	172	212	199	206
4	257	246	251	215	208	211	197	183	192	212	203	208
5	247	241	243	216	192	203	191	108	135	214	206	210
6	270	241	256	217	202	213	175	130	150	212	200	206
7	296	276	287	214	206	210	193	177	186	206	199	202
8	276	255	262	220	207	214	192	188	190	210	201	205
9	260	249	253	217	201	208	193	186	189	213	203	207
10	267	246	254	212	205	207	193	189	191	211	203	208
11	296	266	280	215	205	210	196	187	190	213	205	209
12	271	246	259	226	205	213	196	188	190	215	206	210
13	262	212	226	226	143	203	195	190	192	221	211	216
14	220	190	199	169	143	155	196	188	191	221	212	217
15	204	197	201	201	166	186	197	189	193	225	213	219
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	---	---	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	---	---	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	---	---	---	[illegible]	[illegible]	[illegible]	---	---	---	[illegible]	[illegible]	[illegible]
MONTH	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	231	221	226	233	213	225	274	255	263	185	124	142
2	224	184	202	243	229	236	271	242	257	168	141	153
3	211	184	198	248	234	242	246	232	240	193	169	185
4	239	212	228	242	235	239	242	212	224	202	191	197
5	240	232	237	242	233	237	242	220	229	211	192	200
6	236	222	230	241	230	236	240	232	235	211	203	207
7	232	225	229	247	228	241	236	203	224	203	160	176
8	234	220	226	234	219	223	234	211	220	222	197	212
9	228	214	222	239	232	235	248	230	235	221	214	217
10	220	169	195	244	234	240	258	247	254	231	219	225
11	216	180	200	246	236	241	262	200	235	229	222	225
12	234	216	224	248	237	243	223	200	213	230	212	224
13	239	222	231	250	236	241	245	215	232	254	213	239
14	242	226	233	253	244	248	254	244	250	262	252	258
15	242	229	237	252	237	245	245	227	238	261	254	258
16	232	224	227	257	249	254	241	218	229	264	256	261
17	238	225	232	259	249	253	242	196	233	265	250	260
18	240	229	234	258	243	252	245	209	231	267	248	257
19	238	231	235	260	246	254	233	212	223	263	234	241
20	236	225	230	261	250	256	254	230	242	251	187	216
21	239	219	229	264	256	259	271	248	260	195	170	185
22	235	222	230	265	254	258	260	182	214	224	191	208
23	248	231	239	268	252	261	201	165	184	240	225	234
24	247	241	243	267	254	261	230	196	209	247	237	242
25	252	240	246	271	251	265	214	194	206	250	190	221
26	254	211	232	255	243	250	219	203	209	209	188	197
27	211	199	205	258	240	251	225	209	213	227	208	217
28	225	140	205	253	236	244	229	219	224	241	225	230
29	163	100	120	265	248	257	235	227	232	239	222	225
30	213	165	191	275	258	266	239	222	228	247	226	236
31	---	---	---	277	267	272	235	125	208	---	---	---
MONTH	254	100	221	277	213	248	274	125	229	267	124	218

PH (UNITS), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.5	7.4	7.4	7.3	7.2	7.2	8.0	7.7	7.8	7.6	7.5	7.5
2	7.5	7.4	7.4	7.4	7.3	7.4	7.9	7.7	7.8	7.6	7.4	7.5
3	7.4	7.3	7.4	7.4	7.4	7.4	7.9	7.5	7.8	7.6	7.4	7.5
4	7.4	7.3	7.4	7.4	7.4	7.4	7.9	7.4	7.7	7.6	7.4	7.5
5	7.4	7.3	7.4	7.5	7.4	7.4	7.9	7.4	7.7	7.6	7.4	7.5
6	7.5	7.4	7.4	7.5	7.5	7.5	7.9	7.6	7.7	7.6	7.4	7.5
7	7.5	7.4	7.5	7.5	7.4	7.5	7.7	7.1	7.4	7.5	7.4	7.4
8	7.5	7.4	7.4	7.6	7.4	7.5	7.3	7.0	7.2	7.5	7.4	7.4
9	7.4	7.0	7.2	7.6	7.5	7.5	7.4	7.3	7.3	7.5	7.4	7.4
10	7.4	7.1	7.2	7.5	7.5	7.5	7.5	7.4	7.4	7.4	7.3	7.4
11	7.5	7.4	7.4	7.5	7.4	7.5	7.5	7.4	7.4	7.3	7.3	7.3
12	7.5	7.5	7.5	7.6	7.5	7.5	7.6	7.4	7.4	7.3	7.3	7.3
13	7.5	7.5	7.5	7.6	7.5	7.5	7.6	7.4	7.5	7.4	7.3	7.4
14	7.5	7.4	7.5	7.6	7.6	7.6	7.6	7.5	7.6	7.4	7.3	7.3
15	7.5	7.5	7.5	7.7	7.5	7.6	7.6	7.5	7.5	7.2	7.1	7.1
16	7.6	7.5	7.5	7.7	7.5	7.6	7.5	7.4	7.5	7.1	7.1	7.1
17	7.6	7.5	7.5	7.7	7.6	7.6	7.5	7.4	7.5	7.1	7.1	7.1
18	7.7	7.5	7.6	7.7	7.5	7.6	7.6	7.5	7.5	7.1	7.0	7.1
19	7.7	7.6	7.6	7.8	7.5	7.6	7.7	7.5	7.6	7.3	7.0	7.1
20	7.6	7.5	7.5	7.9	7.5	7.7	7.6	7.5	7.5	7.3	7.2	7.2
21	7.2	7.1	7.2	7.9	7.6	7.8	7.7	7.4	7.5	7.3	7.2	7.2
22	7.4	7.2	7.3	8.0	7.6	7.8	7.6	7.4	7.5	7.3	7.2	7.2
23	7.5	7.4	7.4	8.0	7.6	7.8	7.6	7.5	7.5	7.3	7.2	7.2
24	7.5	7.4	7.4	8.1	7.7	7.8	7.6	7.5	7.5	7.3	7.2	7.2
25	7.6	7.4	7.4	8.1	7.6	7.8	7.6	7.5	7.5	7.3	7.2	7.2
26	7.6	7.5	7.6	8.1	7.7	7.9	7.6	7.5	7.5	7.3	7.2	7.3
27	7.5	7.4	7.5	8.1	7.6	7.8	7.7	7.5	7.6	7.3	7.2	7.3
28	7.5	7.5	7.5	7.9	7.5	7.7	7.6	7.5	7.5	7.3	7.3	7.3
29	7.5	7.4	7.5	7.7	7.5	7.6	7.6	7.5	7.6	7.4	7.3	7.3
30	7.5	7.4	7.5	7.9	7.5	7.7	7.7	7.6	7.6	7.3	7.3	7.3
31	7.4	7.2	7.3	---	---	---	7.6	7.5	7.6	7.3	7.3	7.3
MONTH	7.7	7.0	7.4	8.1	7.2	7.6	8.0	7.0	7.5	7.6	7.0	7.3

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued

PH (UNITS), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	7.3	7.2	7.3	7.2	7.3	7.3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	7.3	7.2	7.3	7.5	7.3	7.4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	7.3	7.3	7.3	7.5	7.4	7.4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	7.3	7.3	7.3	7.4	7.3	7.3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	7.4	7.3	7.3	7.3	7.2	7.2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	7.4	7.3	7.3	7.4	7.3	7.3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7	7.4	7.3	7.3	7.5	7.3	7.4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	7.4	7.3	7.3	7.6	7.4	7.5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9	7.6	7.3	7.4	7.6	7.3	7.5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	7.6	7.4	7.5	7.8	7.3	7.6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11	7.5	7.3	7.4	8.0	7.4	7.7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12	7.4	7.2	7.3	8.1	7.4	7.7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13	7.4	7.3	7.3	7.7	6.9	7.3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	7.4	7.3	7.3	7.1	6.9	7.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	7.4	7.3	7.4	7.3	7.1	7.2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16	7.5	7.4	7.5	7.8	7.3	7.6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	7.6	7.5	7.5	8.2	7.4	7.6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	7.6	7.5	7.6	7.8	7.5	7.6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	7.6	7.5	7.6	7.8	7.4	7.6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	7.6	7.5	7.6	7.8	7.4	7.6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	7.7	7.5	7.6	7.9	7.4	7.6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	7.7	7.6	7.6	7.7	7.4	7.6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	7.7	7.6	7.6	[illegible]	7.4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	7.6	7.5	7.5	7.6	7.2	7.3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	7.3	7.1	7.2	7.6	7.4	7.4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	7.3	7.2	7.3	7.5	7.4	7.4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	7.4	7.2	7.3	7.5	7.4	7.4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	7.3	7.2	7.3	7.5	7.3	7.4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	---	---	---	7.6	7.4	7.5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	---	---	---	7.9	7.3	7.5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	---	---	---	8.2	7.3	7.6	---	---	---	[illegible]	[illegible]	[illegible]
MONTH	7.7	7.0	7.4	8.2	6.9	7.4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	---	---	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	---	---
MONTH	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	14.5	14.0	14.5	9.5	8.0	9.0	1.5	0.5	1.0	0.0	0.0	0.0
2	14.5	14.5	14.5	8.0	6.0	7.0	1.0	0.5	0.5	0.5	0.0	0.0
3	15.0	14.5	14.5	8.0	6.5	7.0	6.5	0.5	1.5	0.5	0.0	0.0
4	16.0	14.5	15.5	9.5	7.5	8.5	6.5	0.5	1.0	0.5	0.0	0.5
5	15.5	15.0	15.5	9.0	7.0	8.0	7.5	0.5	1.0	0.0	0.0	0.0
6	16.0	15.0	15.5	7.0	6.0	6.5	8.5	0.5	1.5	0.5	0.0	0.0
7	17.0	16.0	16.5	7.5	6.0	6.5	4.5	0.5	2.0	0.5	0.0	0.0
8	18.5	17.0	17.5	7.0	5.5	6.5	3.5	1.0	2.5	0.0	0.0	0.0
9	19.0	17.5	18.0	5.5	4.5	5.0	0.5	0.5	0.5	0.0	0.0	0.0
10	17.0	14.0	15.5	5.5	4.5	5.0	2.0	0.5	1.0	0.0	0.0	0.0
11	14.0	12.0	13.0	5.5	5.0	5.5	4.0	2.0	3.5	0.0	0.0	0.0
12	12.0	11.0	11.5	5.5	5.0	5.0	4.5	4.0	4.5	0.0	0.0	0.0
13	13.0	11.0	12.0	5.0	4.0	4.5	4.5	1.5	3.5	0.5	0.0	0.5
14	13.5	12.5	13.0	4.5	3.5	4.0	1.5	0.5	1.0	0.5	0.5	0.5
15	13.5	11.5	12.5	4.5	4.0	4.0	1.0	0.5	0.5	0.5	0.5	0.5
16	14.0	12.5	13.5	4.5	3.5	4.0	2.5	0.5	1.5	0.5	0.0	0.5
17	13.0	11.0	12.0	4.0	3.5	4.0	3.0	2.0	2.5	0.0	0.0	0.0
18	10.5	9.5	10.0	5.0	4.0	4.5	3.0	2.0	2.5	0.0	0.0	0.0
19	9.5	8.5	9.0	5.5	4.5	5.0	2.5	1.5	2.0	0.5	0.0	0.5
20	10.0	8.5	9.5	5.5	5.0	5.5	3.5	2.0	2.5	0.5	0.5	0.5
21	11.5	11.0	11.0	5.0	4.5	4.5	3.5	0.5	2.5	0.5	0.5	0.5
22	11.0	9.5	10.0	4.5	3.5	4.0	0.5	0.0	0.5	0.5	0.5	0.5
23	9.5	8.0	8.5	3.5	2.0	3.0	0.5	0.0	0.5	0.5	0.5	0.5
24	9.5	9.0	9.0	3.0	1.5	2.5	0.5	0.0	0.0	0.5	0.5	0.5
25	11.0	9.5	10.0	3.5	2.5	3.0	2.0	0.0	0.5	0.5	0.5	0.5
26	11.0	10.0	11.0	4.5	2.5	3.5	0.5	0.0	0.5	0.5	0.5	0.5
27	10.0	7.5	8.5	6.5	4.5	6.0	8.5	0.0	1.0	0.5	0.5	0.5
28	7.5	6.0	6.5	8.0	6.5	7.5	0.5	0.0	0.5	0.5	0.5	0.5
29	7.0	5.5	6.5	8.5	5.5	7.5	0.5	0.0	0.0	0.5	0.5	0.5
30	7.5	6.0	6.5	5.5	1.5	3.5	7.0	0.0	1.5	0.5	0.5	0.5
31	10.0	7.5	9.0	---	---	---	0.5	0.0	0.0	0.5	0.5	0.5
MONTH	19.0	5.5	12.0	9.5	1.5	5.5	8.5	0.0	1.5	0.5	0.0	0.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	0.5	0.5	0.5	7.0	5.5	6.0	14.5	12.5	13.5	17.5	14.5	16.0
2	0.5	0.5	0.5	6.5	5.0	6.0	13.5	10.5	11.5	18.0	16.5	17.0
3	0.5	0.5	0.5	6.5	4.5	5.5	15.0	10.5	12.5	20.0	17.0	18.5
4	0.5	0.5	0.5	8.5	6.5	7.0	14.5	10.5	12.5	19.0	15.5	17.0
5	0.5	0.5	0.5	9.5	8.0	8.5	10.5	8.5	9.0	17.5	14.5	16.0
6	0.5	0.5	0.5	9.5	8.5	9.0	10.0	8.0	9.0	20.5	17.0	19.0
7	0.5	0.5	0.5	8.5	7.5	8.0	10.5	8.0	9.5	20.5	19.0	20.0
8	0.5	0.5	0.5	8.5	6.5	7.5	11.5	9.5	10.5	19.5	17.0	18.5
9	0.5	0.5	0.5	9.5	6.5	8.0	10.5	8.5	9.5	18.0	12.5	15.0
10	0.5	0.5	0.5	10.5	8.5	9.5	11.5	8.5	10.0	13.5	11.0	12.5
11	0.5	0.5	0.5	11.5	9.0	10.5	14.5	11.0	12.5	15.5	12.0	14.0
12	0.5	0.5	0.5	12.5	11.0	11.5	17.0	13.0	15.0	17.5	14.0	16.0
13	0.5	0.5	0.5	13.5	12.5	13.0	18.0	15.0	16.5	20.0	17.0	18.5
14	0.5	0.5	0.5	12.5	11.0	11.5	18.0	16.0	17.0	20.5	18.5	19.5
15	0.5	0.5	0.5	12.5	10.5	11.5	17.0	14.0	15.5	19.5	17.5	18.5
16	0.5	0.5	0.5	12.5	11.0	11.5	16.0	13.5	15.0	19.5	17.0	18.5
17	0.5	0.5	0.5	11.5	9.5	10.5	16.0	13.5	15.0	21.0	18.0	19.5
18	0.5	0.5	0.5	10.5	8.5	9.0	16.5	13.5	15.0	23.0	20.0	21.5
19	0.5	0.5	0.5	9.0	7.0	8.0	16.5	15.0	16.0	23.0	22.0	22.5
20	1.5	0.5	1.0	8.5	7.0	7.5	17.5	15.0	16.0	23.0	21.0	22.0
21	2.0	1.0	1.5	9.5	6.5	8.0	18.5	15.5	17.0	24.5	21.5	23.0
22	2.0	0.5	1.0	9.5	7.5	8.5	20.5	17.5	19.0	24.5	22.0	23.5
23	5.0	1.5	3.0	8.5	6.0	7.0	21.5	19.5	20.5	24.0	22.5	23.5
24	5.5	4.5	5.0	8.5	7.0	7.5	21.0	17.5	19.5	24.0	22.0	23.0
25	5.5	3.5	4.5	7.5	5.5	7.0	17.5	15.0	16.5	23.5	22.5	23.0
26	6.5	4.5	5.5	9.0	6.0	7.5	17.0	15.5	16.0	24.5	21.5	23.0
27	9.5	6.0	7.5	10.5	7.5	9.0	15.5	14.0	14.5	24.5	21.5	23.0
28	9.5	7.5	8.5	10.5	10.0	10.0	15.0	13.5	14.5	24.5	21.5	23.5
29	---	---	---	14.5	10.0	12.0	15.5	12.5	14.0	24.5	22.5	23.5
30	---	---	---	18.0	14.0	16.0	16.5	13.0	14.5	23.0	19.5	21.0
31	---	---	---	17.5	14.5	16.5	---	---	---	19.5	19.0	19.0
MONTH	9.5	0.5	1.5	18.0	4.5	9.5	21.5	8.0	14.0	24.5	11.0	19.5

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	20.0	18.5	19.0	25.0	24.0	24.5	26.5	25.0	25.5	25.0	23.5	24.5
2	22.0	19.0	20.5	25.5	23.0	24.0	26.0	24.0	25.0	26.5	24.0	25.5
3	22.5	20.5	21.5	25.5	22.5	24.0	25.5	24.0	24.5	27.0	25.5	26.5
4	22.0	19.5	21.0	25.0	23.0	24.0	26.5	23.5	25.0	26.5	24.5	25.5
5	21.5	20.0	20.5	26.0	23.0	25.0	28.0	25.0	27.0	25.5	24.5	25.0
6	20.0	18.0	19.0	27.5	25.0	26.0	28.5	26.0	27.5	25.5	24.0	24.5
7	18.0	16.5	17.5	26.0	24.5	25.0	28.0	25.5	27.0	25.0	23.0	24.0
8	19.0	16.0	17.5	27.0	24.5	25.5	29.0	26.5	27.5	24.0	22.0	23.0
9	18.5	17.5	18.0	27.0	25.5	26.0	28.5	26.5	27.5	22.5	21.5	22.0
10	18.0	16.5	17.0	26.5	24.5	26.0	28.5	26.0	27.0	24.0	21.5	22.5
11	19.5	16.0	17.5	26.0	24.5	25.0	27.5	25.5	26.5	23.0	21.5	22.0
12	21.0	18.0	19.5	26.5	24.0	25.0	27.0	26.0	26.5	21.5	19.0	20.5
13	22.5	20.0	21.5	28.5	25.5	27.0	26.0	25.5	25.5	21.5	19.5	20.5
14	22.5	21.0	22.0	29.0	26.0	27.5	25.5	24.5	25.0	21.5	20.5	21.0
15	21.5	20.5	21.0	29.5	26.0	27.5	26.0	24.0	24.5	20.5	19.0	20.0
16	23.5	20.5	22.0	29.5	26.0	28.0	26.0	24.5	25.0	20.0	19.5	20.0
17	24.0	22.0	23.0	30.5	27.5	29.0	26.0	25.0	25.5	22.0	20.0	21.0
18	25.0	22.5	24.0	31.0	28.0	29.5	24.5	23.5	24.0	23.5	21.5	22.5
19	26.5	24.0	25.5	31.0	28.5	29.5	23.5	21.5	22.5	25.0	22.5	24.0
20	25.5	24.0	25.0	30.0	28.5	29.0	23.5	21.5	22.5	24.5	23.0	23.5
21	24.5	22.5	23.5	30.5	27.5	29.0	23.0	20.5	21.5	23.0	21.5	22.0
22	24.0	21.5	23.0	30.0	27.0	28.5	22.5	21.0	21.5	21.5	20.0	20.5
23	24.5	21.0	23.0	28.0	24.5	26.5	23.0	21.0	22.0	20.0	19.0	19.5
24	25.0	22.0	23.5	27.5	24.0	26.0	23.0	22.0	22.5	19.5	19.0	19.5
25	24.0	22.5	23.0	26.0	25.0	25.5	23.0	20.5	22.0	19.5	18.0	18.5
26	24.5	21.5	23.0	25.5	23.0	24.5	22.5	20.0	21.5	19.5	17.5	18.5
27	25.5	22.5	24.0	25.0	22.0	23.5	23.5	21.0	22.5	19.5	18.5	19.0
28	26.0	23.0	24.5	25.0	22.0	23.5	25.5	22.5	24.0	20.0	18.5	19.5
29	24.5	22.0	23.5	25.5	22.0	24.0	27.5	24.5	26.0	19.0	18.0	18.5
30	25.5	22.5	24.0	25.0	23.0	24.0	28.5	25.5	27.0	19.5	17.5	18.5
31	---	---	---	26.0	23.0	24.5	28.0	24.5	26.5	---	---	---
MONTH	26.5	16.0	21.5	31.0	22.0	26.0	29.0	20.0	25.0	27.0	17.5	21.5

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	10.0	9.7	9.9	11.9	11.1	11.5	15.1	13.6	14.3	---	---	---
2	10.1	9.7	9.9	12.4	11.9	12.1	14.5	13.6	14.0	---	---	---
3	10.4	10.1	10.3	---	---	---	16.8	13.5	14.9	---	---	---
4	10.8	8.6	10.1	---	---	---	16.6	14.0	15.5	---	---	---
5	9.5	9.0	9.2	---	---	---	17.1	14.0	15.7	14.2	13.6	13.9
6	10.6	9.3	9.6	---	---	---	16.8	13.9	16.0	14.4	13.4	13.8
7	9.9	9.1	9.6	---	---	---	15.9	12.4	14.3	13.6	13.2	13.3
8	9.6	8.9	9.2	13.0	12.8	12.9	13.8	12.7	13.3	13.8	13.0	13.4
9	8.9	7.7	8.4	13.7	12.9	13.3	15.0	13.9	14.4	13.8	13.2	13.5
10	9.5	8.0	9.0	13.5	13.0	13.2	14.9	13.7	14.6	13.4	13.0	13.1
11	9.9	9.1	9.4	13.4	12.7	13.1	14.4	13.6	14.0	13.3	13.0	13.1
12	11.2	9.4	10.2	13.6	12.9	13.3	14.1	13.1	13.5	13.6	13.3	13.4
13	10.9	10.4	10.7	13.9	13.1	13.5	14.7	13.2	14.0	14.5	13.4	14.0
14	10.5	10.0	10.3	14.2	13.4	13.8	16.0	14.7	15.4	14.2	13.0	13.7
15	10.4	10.3	10.3	14.2	13.4	13.8	16.1	15.1	15.5	13.2	13.0	13.1
16	---	---	---	14.3	13.3	13.8	15.1	14.2	14.6	13.2	13.0	13.0
17	---	---	---	14.5	13.5	14.0	14.5	13.9	14.2	13.4	13.0	13.1
18	---	---	---	14.2	13.3	13.7	14.9	14.0	14.5	13.4	13.0	13.2
19	---	---	---	14.0	12.9	13.4	15.2	14.3	14.7	13.6	12.8	13.2
20	---	---	---	14.1	12.6	13.3	14.7	13.8	14.4	13.5	12.9	13.2
21	10.7	10.5	10.6	14.4	12.9	13.6	14.2	12.5	13.2	13.5	13.0	13.2
22	11.0	10.3	10.5	14.7	11.6	13.1	13.7	12.7	13.2	13.6	13.0	13.2
23	10.5	10.0	10.3	---	---	---	13.7	13.1	13.3	13.6	13.0	13.2
24	10.2	9.4	9.7	15.5	14.3	14.9	13.6	13.0	13.3	13.4	12.5	12.9
25	---	---	---	15.2	13.7	14.5	---	---	---	12.5	12.2	12.3
26	---	---	---	15.3	13.7	14.4	---	---	---	12.4	12.1	12.2
27	---	---	---	14.3	12.9	13.5	---	---	---	12.4	12.1	12.3
28	---	---	---	13.4	11.7	12.5	15.1	14.7	14.9	12.5	12.2	12.3
29	12.9	12.5	12.7	12.2	11.0	11.7	15.1	14.4	14.8	12.8	12.2	12.5
30	12.8	12.3	12.5	14.2	11.7	13.1	---	---	---	12.9	12.3	12.6
31	12.3	11.1	11.5	---	---	---	---	---	---	13.0	12.5	12.6
MONTH	12.9	7.7	10.2	15.5	11.0	13.3	17.1	12.4	14.4	14.5	12.1	13.1

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	12.5	12.0	12.3	12.2	11.6	11.9	11.8	9.4	10.6	12.9	8.9	10.8
2	12.8	12.2	12.5	12.5	11.6	12.1	10.6	9.7	10.2	11.9	8.5	10.1
3	12.5	12.2	12.4	12.8	12.0	12.3	10.2	9.5	10.0	12.2	8.1	10.0
4	12.4	12.0	12.1	12.1	11.1	11.6	10.4	9.3	9.9	9.8	8.0	8.9
5	12.3	11.8	12.0	11.3	10.9	11.1	10.5	9.1	9.8	11.2	8.8	9.7
6	12.5	11.6	12.1	11.5	10.8	11.1	11.0	8.4	10.2	10.3	7.9	8.8
7	13.1	12.0	12.5	12.2	11.2	11.7	11.4	10.7	11.0	9.7	7.2	8.4
8	13.2	12.4	12.7	12.5	11.4	12.0	11.2	10.5	10.8	10.1	7.7	8.8
9	13.7	12.4	13.0	12.2	11.2	11.7	11.8	10.7	11.2	10.3	8.0	9.2
10	13.5	12.8	13.1	12.1	10.5	11.3	11.9	10.7	11.3	11.5	9.7	10.6
11	13.1	12.7	12.9	12.3	10.3	11.2	11.5	9.9	10.7	11.3	9.5	10.3
12	12.8	11.8	12.5	12.1	10.1	11.0	11.4	9.4	10.2	11.0	8.7	9.8
13	12.6	12.2	12.4	10.4	9.1	9.5	11.6	8.7	10.0	10.4	8.0	9.1
14	12.1	10.8	11.3	10.2	9.2	9.8	11.8	8.4	9.9	10.0	7.3	8.6
15	---	---	---	10.3	9.9	10.1	12.2	8.8	10.3	10.2	7.6	8.8
16	13.3	12.8	13.1	10.8	9.9	10.3	12.4	9.0	10.5	10.2	7.8	9.0
17	13.5	13.2	13.4	11.4	10.3	10.9	12.3	9.0	10.5	10.2	7.8	8.9
18	14.0	13.4	13.6	11.0	10.5	10.8	12.3	9.0	10.5	10.2	7.1	8.5
19	13.5	13.2	13.4	12.0	10.8	11.4	11.6	8.6	10.1	8.9	6.6	7.7
20	13.1	12.6	12.7	12.0	11.1	11.6	12.5	8.8	10.4	9.5	6.6	8.0
21	13.4	12.6	13.0	12.8	11.4	12.0	12.5	8.6	10.5	9.5	6.7	7.9
22	13.7	13.2	13.4	11.5	9.8	10.6	12.0	8.2	10.0	---	---	---
23	13.4	12.6	13.1	---	---	---	11.3	7.5	9.4	---	---	---
24	12.1	10.8	11.9	11.6	11.4	11.5	9.2	7.2	8.3	---	---	---
25	---	---	---	12.2	11.5	11.8	10.1	8.0	9.0	8.9	6.8	8.0
26	---	---	---	12.1	11.3	11.7	9.2	7.8	8.5	8.9	6.7	7.7
27	12.2	11.8	12.0	11.8	10.9	11.4	10.6	8.3	9.3	8.6	6.6	7.5
28	11.6	11.0	11.3	11.2	10.6	10.9	10.6	8.5	9.4	8.4	6.6	7.4
29	---	---	---	11.3	9.7	10.7	12.4	8.2	10.3	8.3	6.3	7.3
30	---	---	---	10.8	9.1	9.8	12.7	9.3	10.9	7.6	6.6	7.2
31	---	---	---	10.5	8.6	9.6	---	---	---	8.6	7.2	7.8
MONTH	14.0	10.8	12.6	12.8	8.6	11.1	12.7	7.2	10.1	12.9	6.3	8.7

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	8.0	7.6	7.8	7.3	6.7	6.9	9.0	6.6	7.5	7.4	6.9	7.1
2	7.7	6.8	7.3	7.6	6.9	7.2	8.0	6.5	7.1	7.5	6.8	7.1
3	7.1	6.7	6.9	8.0	7.0	7.5	7.4	6.1	6.7	8.0	6.5	7.2
4	7.9	6.9	7.3	8.0	7.0	7.5	7.9	6.5	7.0	8.6	6.7	7.5
5	7.5	7.0	7.3	8.4	6.9	7.6	7.9	5.9	6.8	8.4	6.8	7.4
6	7.5	7.2	7.3	8.7	6.7	7.4	7.5	6.0	6.6	8.8	6.9	7.7
7	8.0	7.5	7.8	7.7	6.2	6.9	7.0	5.7	6.3	7.4	6.6	6.8
8	8.2	7.7	8.0	8.5	6.5	7.4	7.0	5.6	6.1	8.7	6.9	7.7
9	7.7	7.4	7.6	8.4	6.5	7.4	7.6	5.6	6.5	8.9	7.5	8.0
10	8.3	7.4	7.9	8.7	6.7	7.7	8.2	5.9	6.8	9.4	7.5	8.2
11	8.4	7.9	8.3	9.1	6.7	7.8	6.6	6.1	6.3	9.5	7.4	8.3
12	8.3	7.8	8.0	8.6	6.8	7.5	7.3	5.8	6.4	10.3	7.9	8.9
13	8.2	7.5	7.8	8.9	6.4	7.5	7.3	6.2	6.7	10.8	8.0	9.1
14	7.9	7.2	7.6	9.9	6.2	7.8	6.9	6.2	6.6	9.9	7.9	8.7
15	8.1	7.2	7.6	10.1	6.5	8.1	7.4	6.4	6.8	10.8	8.0	9.1
16	8.4	7.3	7.8	10.9	6.5	8.4	7.3	6.2	6.6	9.9	8.1	9.0
17	8.7	7.2	7.8	9.5	6.4	7.7	7.0	5.9	6.4	9.9	7.8	8.7
18	9.3	7.2	8.1	9.8	6.0	7.5	7.6	6.5	7.0	9.7	7.4	8.4
19	10.0	6.9	8.4	9.4	5.8	7.2	7.7	6.8	7.2	10.2	7.2	8.3
20	9.8	6.8	8.3	8.3	5.5	6.6	8.2	7.0	7.5	7.7	6.8	7.1
21	9.5	7.0	8.2	9.4	5.4	7.0	9.0	7.3	8.0	8.0	7.0	7.4
22	9.7	7.5	8.6	9.6	5.8	7.3	7.7	6.8	7.2	8.0	7.4	7.6
23	9.4	7.6	8.4	9.9	6.4	7.7	---	---	---	8.5	7.8	8.1
24	9.2	7.3	8.2	9.9	6.7	7.9	7.8	7.4	7.6	8.6	7.9	8.1
25	8.4	7.1	7.8	8.5	6.5	7.2	8.4	7.4	7.9	8.4	7.9	8.2
26	7.4	6.4	7.0	8.1	6.4	7.1	8.9	7.7	8.2	8.5	8.1	8.4
27	7.0	6.3	6.6	8.6	6.8	7.5	9.4	7.9	8.5	8.5	7.9	8.2
28	8.5	6.4	7.0	9.3	6.9	7.8	9.8	7.7	8.6	8.4	7.9	8.1
29	6.4	5.2	6.1	9.7	7.2	8.2	10.3	7.4	8.6	9.0	7.9	8.4
30	7.1	6.3	6.7	8.8	6.8	7.5	10.7	7.1	8.6	9.2	8.3	8.6
31	---	---	---	9.6	6.7	7.9	10.6	6.8	8.1	---	---	---
MONTH	10.0	5.2	7.7	10.9	5.4	7.5	10.7	5.6	7.2	10.8	6.5	8.0

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	332	26	23	593	25	40	201	6	3.3
2	245	11	7.3	400	4	4.3	206	5	2.8
3	676	83	215	350	2	1.9	188	10	5.1
4	458	47	58	320	3	2.6	185	8	4.0
5	263	20	14	290	3	2.3	180	6	2.9
6	236	17	11	275	2	1.5	180	4	1.9
7	223	17	10	265	1	0.72	966	150	391
8	210	25	14	250	1	0.68	646	115	201
9	1210	191	1030	240	1	0.65	318	30	26
10	754	111	315	235	1	0.63	281	15	11
11	356	20	19	225	1	0.61	263	10	7.1
12	281	15	11	220	2	1.2	267	8	5.8
13	254	14	9.6	215	2	1.2	259	5	3.5
14	236	15	9.6	210	2	1.1	219	5	3.0
15	219	12	7.1	205	2	1.1	227	7	4.3
16	214	11	6.4	202	2	1.1	232	6	3.8
17	206	10	5.6	200	2	1.1	223	5	3.0
18	201	8	4.3	195	1	0.53	214	5	2.9
19	197	6	3.2	192	1	0.52	210	4	2.3
20	210	20	11	190	2	1.0	210	7	4.0
21	1720	275	1490	190	2	1.0	281	8	6.1
22	567	30	46	188	2	1.0	197	5	2.7
23	400	6	6.5	188	3	1.5	219	6	3.5
24	300	4	3.2	193	6	3.1	201	5	2.7
25	390	7	7.4	201	5	2.7	241	6	3.9
26	599	22	36	201	5	2.7	219	5	3.0
27	350	9	8.5	206	5	2.8	236	4	2.5
28	300	3	2.4	201	6	3.3	206	3	1.7
29	270	2	1.5	254	9	6.2	201	2	1.1
30	260	1	0.70	259	7	4.9	195	2	1.1
31	795	60	174	---	---	---	190	3	1.5
TOTAL	12932	---	3560.30	7353	---	93.94	8061	---	718.5

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JANUARY			FEBRUARY			MARCH	
1	186	3	1.5	150	2	0.81	342	12	11
2	183	3	1.5	150	5	2.0	312	10	8.4
3	182	3	1.5	160	6	2.6	284	10	7.7
4	184	3	1.5	180	8	3.9	386	24	25
5	188	3	1.5	160	6	2.6	783	102	237
6	184	5	2.5	150	6	2.4	420	26	29
7	184	4	2.0	150	6	2.4	354	12	11
8	193	5	2.6	150	6	2.4	324	9	7.9
9	193	6	3.1	170	5	2.3	349	7	6.6
10	450	25	30	200	4	2.2	336	8	7.3
11	607	30	49	300	25	20	305	9	7.4
12	337	6	5.5	700	130	246	255	10	6.9
13	245	5	3.3	900	125	304	898	446	2270
14	227	4	2.5	800	120	259	1640	933	5480
15	227	3	1.8	600	35	57	552	90	134
16	214	3	1.7	484	15	20	490	32	42
17	201	3	1.6	358	10	9.7	430	15	17
18	195	4	2.1	277	9	6.7	484	21	27
19	180	4	1.9	249	9	6.1	452	25	31
20	180	4	1.9	256	9	6.2	370	12	12
21	180	4	1.9	232	8	5.0	381	6	6.2
22	170	4	1.8	207	9	5.0	1640	657	6670
23	170	4	1.8	236	8	5.1	2330	431	3910
24	170	4	1.8	696	531	3470	734	58	115
25	190	4	2.1	1890	1280	9330	585	22	35
26	190	3	1.5	506	107	146	532	16	23
27	180	3	1.5	402	28	30	492	13	17
28	170	3	1.4	404	19	21	472	12	15
29	160	3	1.3	---	---	---	466	12	15
30	150	3	1.2	---	---	---	440	12	14
31	150	2	0.81	---	---	---	422	15	17
TOTAL	6620	---	136.11	11117	---	13970.41	18260	---	19215.4

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	394	10	11	337	6	5.5	217	15	8.8
2	620	65	109	329	6	5.3	523	131	220
3	840	90	204	333	6	5.4	219	95	56
4	461	25	31	317	10	8.6	184	26	13
5	3310	581	6460	378	7	7.1	180	21	10
6	1290	100	348	398	6	6.4	193	23	12
7	764	24	50	363	5	4.9	223	21	13
8	671	17	31	315	5	4.3	184	16	7.9
9	631	9	15	306	6	5.0	259	27	19
10	587	9	14	295	4	3.2	454	90	110
11	557	10	15	281	3	2.3	245	60	40
12	533	12	17	272	4	2.9	206	35	19
13	509	11	15	259	5	3.5	188	21	11
14	521	11	15	256	6	4.1	188	22	11
15	478	9	12	250	7	4.7	223	24	14
16	430	9	10	246	7	4.6	197	20	11
17	443	10	12	245	6	4.0	180	18	8.7
18	424	9	10	241	6	3.9	197	16	8.5
19	405	8	8.7	268	6	4.3	176	17	8.1
20	356	7	6.7	246	6	4.0	180	20	9.7
21	341	6	5.5	236	8	5.1	193	22	11
22	343	7	6.5	224	7	4.2	160	20	8.6
23	337	8	7.3	213	7	4.0	160	19	8.2
24	343	13	12	215	6	3.5	151	18	7.3
25	520	22	31	207	9	5.0	144	16	6.2
26	483	17	22	209	11	6.2	332	87	78
27	457	9	11	195	9	4.7	201	70	38
28	369	8	8.0	191	9	4.6	454	248	1560
29	414	8	8.9	183	10	4.9	1500	694	4810
30	358	7	6.8	182	9	4.4	263	80	57
31	---	---	---	185	8	4.0	---	---	---
TOTAL	18189	---	7513.4	8175	---	144.6	8174	---	7195.0

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JULY			AUGUST			SEPTEMBER	
1	206	47	26	110	26	7.7	781	210	443
2	188	28	14	193	24	13	263	37	26
3	172	21	9.8	197	25	13	236	19	12
4	164	19	8.4	223	33	20	193	20	10
5	164	19	8.4	144	30	12	168	22	10
6	164	15	6.6	168	25	11	180	30	15
7	272	27	20	267	35	25	197	90	48
8	210	25	14	144	18	7.0	147	34	13
9	176	20	9.5	129	20	7.0	140	18	6.8
10	168	14	6.4	129	17	5.9	140	15	5.7
11	160	13	5.6	323	65	57	129	14	4.9
12	168	15	6.8	184	40	20	117	15	4.7
13	164	12	5.3	172	22	10	114	12	3.7
14	147	11	4.4	201	55	30	110	17	5.0
15	140	12	4.5	227	39	24	110	11	3.3
16	132	12	4.3	164	22	9.7	106	10	2.9
17	132	11	3.9	206	55	31	164	14	6.2
18	125	9	3.0	267	60	43	151	14	5.7
19	129	9	3.1	160	25	11	129	10	3.5
20	125	10	3.4	140	19	7.2	454	110	135
21	125	11	3.7	129	18	6.3	219	35	21
22	114	11	3.4	501	155	325	176	27	13
23	103	12	3.3	210	75	43	168	19	8.6
24	103	12	3.3	184	40	20	172	16	7.4
25	121	16	5.2	214	26	15	446	84	140
26	184	27	13	160	12	5.2	304	44	36
27	129	18	6.3	140	10	3.8	236	23	15
28	110	19	5.6	132	6	2.1	290	28	22
29	110	23	6.8	129	7	2.4	214	34	20
30	106	24	6.9	121	6	2.0	176	21	10
31	114	20	6.2	272	113	217	---	---	---
TOTAL	4625	---	231.1	5940	---	1006.3	6430	---	1057.4

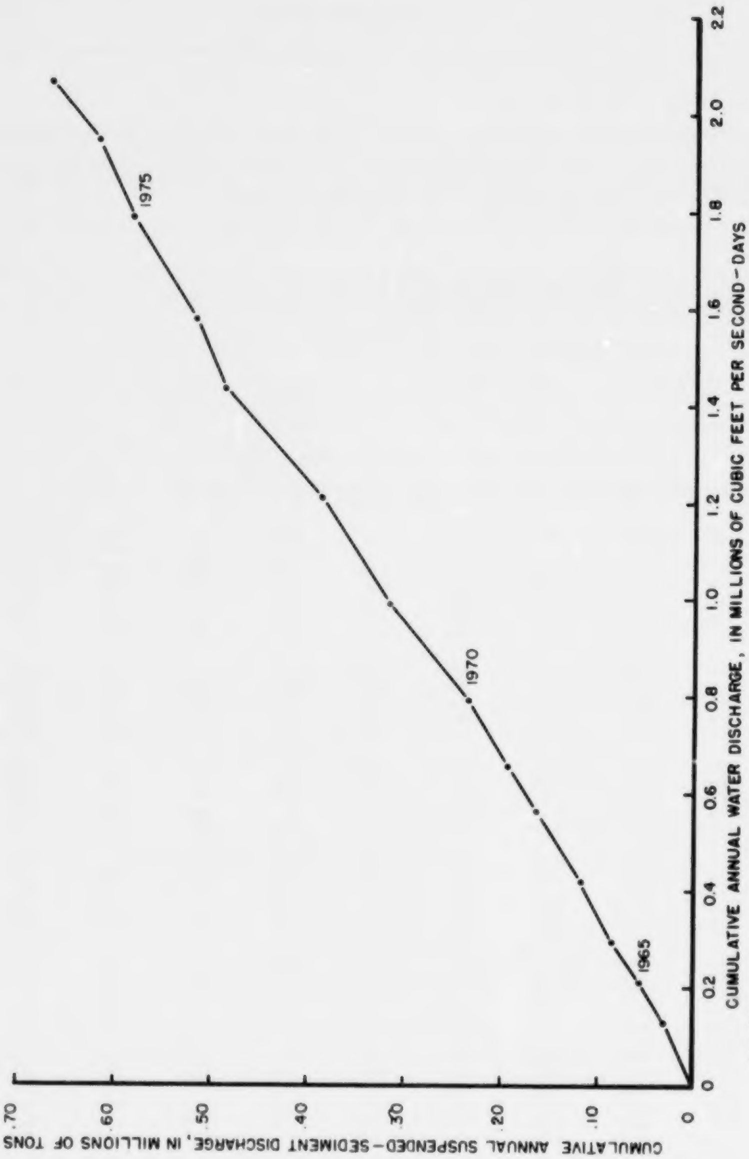

FIGURE —Double mass accumulation of annual suspended-sediment discharge versus annual water discharge, Brandywine at Chadds Ford, Pa.

Table 3.--Suspended sediment concentration-duration table, Brandywine Creek at Chadds Ford

Period	Mean daily concentration, in milligrams per liter, that was equaled or exceeded for indicated percentage of time													
	1	2	5	10	20	30	40	50	60	70	80	90	95	99
1977	620	415	119	66	27	21	16	12	9	6	5	3	2	1
1964-77	490	305	110	50	27	19	15	13	10	8	6	4	3	1

01481500 BRANDYWINE CREEK AT WILMINGTON, DE

LOCATION.--Lat 39°46'09", long 75°34'25", New Castle County, Hydrologic Unit 02040205, on right bank in Rockford Park, 0.2 mi (0.3 km) downstream from Henry Clay Bridge, in Wilmington, and 4.2 mi (6.8 km) upstream from mouth.

DRAINAGE AREA.--314 mi² (813 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1946 to current year. Prior to December 1946 monthly discharge only, published in WSP 1302.

REVISED RECORDS.--WSP 1432: 1948, 1950.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 68.23 ft (20.797 m) above mean sea level.

REMARKS.--Water-discharge records good. Some diurnal fluctuation at low flow caused by mills above station. Flow regulated since November 1973 by Marsh Creek Reservoir about 27 mi (43 km) upstream. No diversion just above station by plant of E. I. du Pont de Nemours & Co. since June 13, 1960.

AVERAGE DISCHARGE.--31 years, 465 ft³/s (13.17 m³/s), 20.11 in/yr (511 mm/yr), adjusted for storage since November 1973.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,000 ft³/s (821 m³/s) June 23, 1972, gage height, 15.49 ft (4.721 m), from rating curve extended above 18,000 ft³/s (510 m³/s); minimum, about 30 ft³/s (0.85 m³/s) Dec. 26, 1948, during period of ice effect; minimum daily, 56 ft³/s (1.59 m³/s) Aug. 23, 24, 1957.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,000 ft³/s (110 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 23	0530	*4900	139	7.73	2.356	Apr. 5	1645	4860	138	7.70	2.347

Minimum discharge, 110 ft³/s (3.12 m³/s) Aug. 1; minimum daily, 115 ft³/s (3.26 m³/s) July 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	295	689	217	169	170	409	445	391	253	254	139	947
2	225	364	229	205	170	352	714	374	657	226	197	321
3	597	331	179	206	180	320	1160	405	295	203	215	246
4	609	326	194	209	190	418	615	364	231	192	276	223
5	276	310	209	194	170	946	3360	457	220	193	177	179
6	245	290	205	190	150	553	1720	511	233	191	171	185
7	225	276	992	197	150	417	1010	472	269	301	342	239
8	209	263	1040	183	150	370	872	378	234	259	179	169
9	1330	250	370	205	160	389	811	359	400	210	169	164
10	1190	245	326	326	200	376	744	343	623	196	164	159
11	370	237	295	491	300	348	711	330	316	190	365	154
12	295	229	300	276	800	281	680	316	255	194	241	150
13	267	221	290	225	1030	929	639	308	234	191	199	147
14	245	225	250	233	927	2080	653	296	226	182	266	142
15	221	217	250	237	513	762	597	282	265	170	281	138
16	213	209	263	217	365	637	522	273	244	164	198	133
17	205	221	250	190	282	545	539	268	220	160	265	163
18	205	213	245	180	251	607	510	270	233	156	349	194
19	194	213	237	210	262	604	497	295	216	156	193	187
20	378	209	237	210	265	433	418	272	210	157	176	519
21	2020	213	321	200	253	446	401	264	236	150	163	291
22	575	213	224	190	217	1670	397	245	198	145	580	190
23	364	205	245	180	248	2780	392	232	188	140	283	192
24	326	197	209	180	629	993	407	230	177	135	210	186
25	378	205	197	200	2230	778	670	227	177	130	255	489
26	728	205	258	200	687	693	623	221	373	212	195	402
27	463	213	217	190	507	631	608	215	260	166	172	277
28	331	213	221	180	500	591	461	206	331	140	167	322
29	286	245	229	160	---	586	522	202	1870	130	160	253
30	272	267	183	160	---	542	443	198	356	120	154	201
31	890	---	213	170	---	506	---	209	---	115	190	---
TOTAL	14427	7714	9095	6563	11956	21992	22141	9413	10000	5526	7064	7559
MEAN	465	257	293	212	427	709	738	304	333	178	228	252
MAX	2020	689	1040	491	2230	2780	3360	511	1870	301	580	947
MIN	194	197	179	160	150	281	392	198	177	115	139	133

CAL YR 1976 TOTAL 160793 MEAN 439 MAX 3540 MIN 122
WTR YR 1977 TOTAL 133454 MEAN 366 MAX 3360 MIN 115

01481500 BRANDYWINE CREEK AT WILMINGTON, DE--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1946 to current year.

PERIOD OF DAILY RECORD.--
SUSPENDED SEDIMENT DISCHARGE: December 1946 to September 1961, July 1962 to current year.

REMARKS.--Unpublished chemical-quality data and specific conductance, pH, and temperature of sediment samples available in the district office at Parkville, Md. Sediment data from 01481000 Brandywine Creek at Chadds Ford, Pa., are used in computation of sediment records.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily, 1,700 mg/L Feb. 14, 1966; minimum daily, 1 mg/L on many days.
SEDIMENT LOADS: Maximum daily, 35,700 tons (32,400 tonnes) Feb. 14, 1971; minimum daily, less than 0.50 ton (0.45 tonne) on many days.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily, 1,150 mg/L Feb. 25; minimum daily, 2 mg/L Nov. 21, May 16.
SEDIMENT LOADS: Maximum daily, 7,780 tons (7,060 tonnes) Feb. 25; minimum daily, 1.2 tons (1.1 tonnes) Nov. 21.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)
OCT 01...	1240	320	225	7.8	15.0	8.3
NOV 01...	1330	611	175	6.6	9.0	11.5
DEC 01...	1140	217	227	11.1	2.0	14.2
JAN 03...	1220	180	310	8.5	1.0	--
MAR 01...	1300	382	200	7.7	4.5	11.6
APR 04...	1220	580	189	7.7	10.5	11.6
MAY 02...	1245	371	210	8.5	15.0	10.9
JUN 01...	1210	237	202	7.7	18.5	8.9
JUL 01...	1250	246	175	7.9	24.0	8.5
AUG 01...	1130	110	258	7.8	25.0	8.1
SEP 01...	1145	1100	210	7.5	23.5	8.5

DATE	TIME	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)
NOV 01...	1330	62	26	15	6.0	6.9	3.8	44	0	36	18	27
JAN 03...	1220	88	34	21	8.6	12	2.6	66	0	54	.3	24
MAR 01...	1300	78	40	20	6.9	10	3.4	47	0	39	1.5	23
JUN 01...	1210	76	25	19	7.0	10	2.6	63	0	52	2.0	20
SEP 01...	1145	74	33	19	6.5	9.3	4.0	50	0	41	2.5	20

DATE	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	SUSPENDED MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
NOV 01...	12	.2	11	105	104	1.9	.03	1200	110	80	30	50
JAN 03...	18	.1	12	141	131	3.2	.20	280	30	60	0	60
MAR 01...	18	.1	11	125	116	2.4	.14	460	220	70	20	50
JUN 01...	16	.1	11	127	117	2.1	.15	1000	80	110	50	60
SEP 01...	13	.1	7.3	135	106	1.5	.53	7800	2300	290	190	100

01481500 BRANDYWINE CREEK AT WILMINGTON, DE--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	295	25	20	689	27	50	217	5	2.9
2	225	10	6.1	364	15	15	229	4	2.5
3	597	96	239	331	13	12	179	3	1.4
4	609	55	90	326	12	11	194	4	2.1
5	276	23	17	310	10	8.4	209	3	1.7
6	245	15	9.9	290	8	6.3	205	3	1.7
7	225	16	9.7	276	8	6.0	992	100	268
8	209	26	15	263	7	5.0	1040	160	449
9	1330	190	1010	250	7	4.7	370	56	56
10	1190	118	495	245	8	5.3	326	18	16
11	370	15	15	237	9	5.8	295	9	7.2
12	295	13	10	229	8	4.9	300	7	5.7
13	267	12	8.7	221	6	3.6	290	6	4.7
14	245	11	7.3	225	5	3.0	250	6	4.1
15	221	9	5.4	217	6	3.5	250	5	3.4
16	213	8	4.6	209	7	4.0	263	6	4.3
17	205	7	3.9	221	7	4.2	250	7	4.7
18	205	6	3.3	213	8	4.6	245	6	4.0
19	194	6	3.1	213	6	3.5	237	4	2.6
20	378	59	158	209	4	2.3	237	5	3.2
21	2020	379	2620	213	2	1.2	321	13	11
22	575	38	59	213	3	1.7	224	12	7.3
23	364	12	12	205	3	1.7	245	13	8.6
24	326	6	5.3	197	4	2.1	209	11	6.2
25	378	10	10	205	4	2.2	197	9	4.8
26	728	27	53	205	4	2.2	258	8	5.6
27	463	10	13	213	4	2.3	217	9	5.3
28	331	7	6.3	213	3	1.7	221	14	8.4
29	286	8	6.2	245	5	3.3	229	12	7.4
30	272	7	5.1	267	6	4.3	183	10	4.9
31	890	59	142	---	---	---	213	9	5.2
TOTAL	14427	---	5062.9	7714	---	185.8	9095	---	919.9

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JANUARY			FEBRUARY			MARCH	
1	169	9	4.1	170	4	1.8	409	12	13
2	205	8	4.4	170	4	1.8	352	7	6.7
3	206	8	4.4	180	4	1.9	320	7	6.0
4	209	10	5.6	190	6	3.1	418	15	17
5	194	13	6.8	170	6	2.8	946	90	230
6	190	11	5.6	150	6	2.4	553	23	34
7	197	10	5.3	150	7	2.8	417	8	9.0
8	183	9	4.4	150	7	2.8	370	6	6.0
9	205	10	5.5	160	6	2.6	389	5	5.3
10	326	20	18	200	6	3.2	376	5	5.1
11	491	30	40	300	30	24	348	5	4.7
12	276	10	7.5	800	120	259	281	5	3.8
13	225	8	4.9	1030	115	320	929	285	1960
14	233	8	5.0	927	120	300	2080	809	5060
15	237	8	5.1	513	35	48	762	145	298
16	217	7	4.1	365	15	15	637	38	65
17	190	7	3.6	282	10	7.6	545	16	24
18	180	7	3.4	251	9	6.1	607	15	25
19	210	6	3.4	262	9	6.4	604	15	24
20	210	6	3.4	265	9	6.4	433	12	14
21	200	6	3.2	253	8	5.5	446	8	9.6
22	190	7	3.6	217	8	4.7	1670	290	2400
23	180	7	3.4	248	9	6.0	2780	420	3770
24	180	6	2.9	629	265	1350	993	80	214
25	200	6	3.2	2230	1150	7780	778	28	59
26	200	5	2.7	687	195	362	693	17	32
27	190	5	2.6	507	50	68	631	12	20
28	180	5	2.4	500	16	22	591	11	18
29	160	5	2.2	---	---	---	586	10	16
30	160	5	2.2	---	---	---	542	9	13
31	170	5	2.3	---	---	---	506	10	14
TOTAL	6563	---	175.2	11956	---	10615.9	21992	---	14376.2

01481500 BRANDYWINE CREEK AT WILMINGTON, DE--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	445	11	13	391	4	4.2	253	19	13
2	714	55	106	374	4	4.0	657	72	150
3	1160	115	360	405	5	5.5	295	73	58
4	615	35	58	364	5	4.9	231	40	25
5	3360	521	5430	457	6	7.4	220	53	31
6	1720	95	441	511	8	11	233	25	16
7	1010	18	49	472	9	11	269	22	16
8	872	10	24	378	8	8.2	234	17	11
9	811	8	18	359	12	12	400	45	49
10	744	5	10	343	16	15	623	70	118
11	711	4	7.7	330	8	7.1	316	53	45
12	680	3	5.5	316	7	6.0	255	42	29
13	639	2	3.5	308	8	6.7	234	27	17
14	653	3	5.3	296	10	8.0	228	26	16
15	597	6	9.7	282	7	5.3	265	33	24
16	522	4	5.6	273	2	1.5	244	25	16
17	539	4	5.8	268	4	2.9	220	23	14
18	510	4	5.5	270	5	3.6	233	21	13
19	497	6	8.1	295	6	4.8	216	20	12
20	418	7	7.9	272	7	5.1	210	30	17
21	401	6	6.5	264	6	4.3	236	38	24
22	397	6	6.4	245	5	3.3	198	27	14
23	392	6	6.4	232	6	3.8	188	30	15
24	407	7	7.7	230	10	6.2	177	26	12
25	670	12	22	227	21	13	177	23	11
26	623	10	17	221	14	8.4	373	38	38
27	608	9	15	215	9	5.2	260	42	29
28	461	7	8.7	206	8	4.4	331	98	306
29	522	8	11	202	10	5.5	1870	842	5940
30	443	6	7.2	198	11	5.9	356	126	121
31	---	---	---	209	12	6.8	---	---	---
TOTAL	22141	---	6681.5	9413	---	201.0	10000	---	7200

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JULY			AUGUST			SEPTEMBER	
1	254	46	32	139	9	3.4	947	200	511
2	226	40	24	197	11	5.9	321	35	30
3	203	30	16	215	16	9.3	246	20	13
4	192	25	13	276	17	13	223	18	11
5	193	21	11	177	11	5.3	179	16	7.7
6	191	21	11	171	11	5.1	185	11	5.5
7	301	28	23	342	24	22	238	40	26
8	259	28	20	179	13	6.3	169	30	14
9	210	21	12	169	14	6.4	164	20	8.9
10	194	18	9.4	164	15	6.6	158	12	5.1
11	190	19	9.7	365	55	54	154	13	5.4
12	194	19	10	241	20	13	150	14	5.7
13	191	17	8.8	198	18	9.6	147	13	5.2
14	182	16	7.9	246	20	13	142	13	5.0
15	170	16	7.3	281	18	14	138	11	4.1
16	164	14	6.2	198	16	8.6	133	12	4.3
17	160	10	4.3	265	35	25	163	15	6.6
18	156	11	4.6	349	45	42	196	15	7.9
19	156	11	4.6	193	23	12	187	15	7.6
20	157	8	3.4	174	17	8.0	519	90	126
21	150	8	3.2	163	16	7.0	291	29	23
22	145	7	2.7	580	142	205	190	22	11
23	140	7	2.6	283	63	48	192	21	11
24	135	8	2.9	210	45	26	186	20	10
25	130	9	3.2	255	30	21	488	70	92
26	212	14	8.0	195	16	8.4	402	45	49
27	166	16	7.2	172	17	7.9	277	27	20
28	140	11	4.2	167	14	6.3	322	23	20
29	130	8	2.8	160	11	4.8	253	16	11
30	120	9	2.9	154	10	4.2	201	14	7.6
31	115	9	2.8	190	45	23	---	---	---
TOTAL	5526	---	280.7	7068	---	724.1	7559	---	1064.6

01481500 BRANDYWINE CREEK AT WILMINGTON, DE--Continued

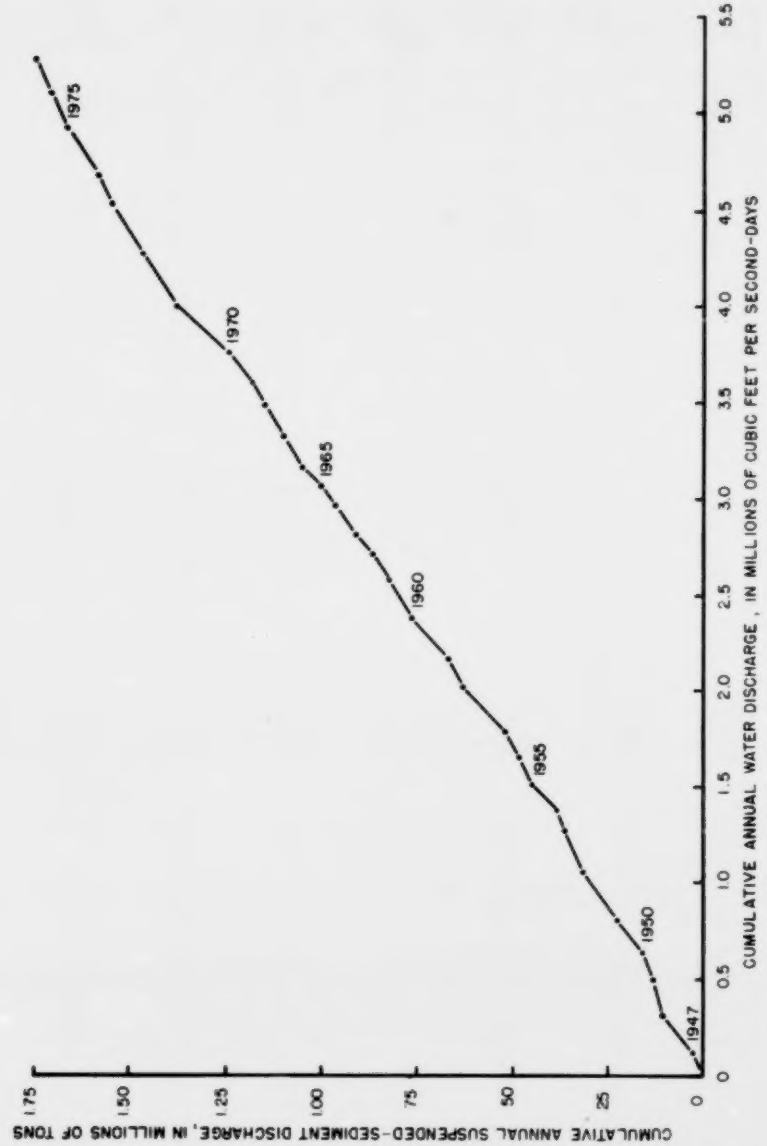

FIGURE — Double mass accumulation of annual suspended-sediment discharge versus annual water discharge, Brandywine Creek at Wilmington, Delaware

Table 4.--Suspended sediment concentration-duration table, Brandywine Creek at Wilmington, DE.

Period	Mean daily concentration, in milligrams per liter, that was equaled or exceeded for indicated percentage of time													
	1	2	5	10	20	30	40	50	60	70	80	90	95	99
1977	490	285	117	58	28	19	15	11	9	7	6	5	4	3
1948-77*	460	290	125	57	26	19	15	12	10	8	6	4	3	2

* Excludes 1962-63-65

01482100 DELAWARE RIVER AT DELAWARE MEMORIAL BRIDGE, NEAR WILMINGTON, DE

LOCATION.--Lat 39°41'21", long 75°31'19", New Castle County, Hydrologic Unit 02040205, at tidal gaging station located on channel side of west tower of south bridge between Pigeon Point, DE, and Deepwater Point, NJ,

DRAINAGE AREA.--11,030 mi^2 (28,600 km^2).

PERIOD OF RECORD.--July 1955 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1963 to current year.
pH: January 1968 to current year.
WATER TEMPERATURES: October 1956 to current year.
DISSOLVED OXYGEN: November 1962 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 12,700 micromhos Nov. 13, 1966; minimum, 100 micromhos on many days.
pH: Maximum, 9.3 Nov. 10-11, 13, 1970; minimum, 4.2 Nov. 6, 1969.
WATER TEMPERATURES: Maximum, 31.0°C Aug. 9, 1968; minimum, freezing point on many days during winter periods.
DISSOLVED OXYGEN: Maximum, 13.5 mg/L Dec. 29, 1969; minimum, 0.0 mg/L on many days during summer periods.

EXTREMES FOR CURRENT YEAR.--
pH: Maximum, 7.4 on several days during Jan.; minimum, 6.1 Feb. 19.
WATER TEMPERATURES: Maximum, 30.5°C July 18, 19, 21, 22; minimum, freezing point on several days during Jan.
DISSOLVED OXYGEN: Maximum, 12.1 mg/L Jan. 14; minimum, 1.1 mg/L Sept. 29, 30.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	5860	2550	4280	---	---	---	2550	354	1130			
2	6160	2600	4280	---	---	---	1750	400	882			
3	6290	2200	4120	3220	1870	2340	1050	268	609			
4	6270	2260	4050	3220	1860	2320	1430	330	737			
5	6760	2260	4130	3210	1890	2280	1180	320	689			
6	6760	1010	3600	2490	1910	2090	1380	374	824			
7	5790	1000	3380	2390	1960	2080	1900	432	948			
8	7040	2240	5140	2360	2000	2080	1230	300	666			
9	7690	1150	4150	3330	2020	2220	802	290	465			
10	6760	2090	4590	2700	1980	2240	940	296	447			
11	6420	4000	4700	2600	2000	2220	500	302	366			
12	4760	4010	4350	3470	2030	2380	642	306	395			
13	4780	4010	4370	2660	2050	2290	528	314	359			
14	4760	4300	4480	3470	2050	2390	650	316	375			
15	4710	4000	4440	3240	2090	2450	572	318	404			
16	4540	4240	4380	---	---	---	624	332	440			
17	4680	4000	4420	---	---	---	724	348	486			
18	4570	3000	4310	---	---	---	682	328	443			
19	---	---	---	---	---	---	998	328	487			
20	---	---	---	---	---	---	1260	330	609			
21	---	---	---	---	---	---	914	298	462			
22	---	---	---	1810	430	817	688	292	390			
23	---	---	---	2230	430	1110	846	304	476			
24	---	---	---	2340	460	1150	800	310	487			
25	---	---	---	2480	510	1300	1020	316	619			
26	---	---	---	2380	550	1380	1020	262	601			
27	4960	2040	2630	2640	500	1430	1170	324	605			
28	3110	1970	2320	3120	580	1490	1140	348	666			
29	2910	1960	2240	2540	610	1460	---	---	---			
30	2640	1970	2270	2190	500	1240	---	---	---			
31	---	---	---	---	---	---	---	---	---			
MONTH	7690	1000	3940	3470	430	1850	2550	262	574			

01482100 DELAWARE RIVER AT DELAWARE MEMORIAL BRIDGE, NEAR WILMINGTON, DE--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 °C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	1610	340	704	190	170	179	540	250	285
2	---	---	---	600	300	379	230	180	189	610	250	306
3	---	---	---	---	---	---	230	170	185	510	250	303
4	8490	2740	5430	---	---	---	200	180	186	560	250	354
5	10400	2760	6190	---	---	---	210	160	179	830	250	421
6	7220	1900	4180	---	---	---	180	150	164	990	250	468
7	8100	2730	5140	270	210	233	170	150	159	1100	260	465
8	8290	3190	5630	260	180	218	170	140	153	850	240	455
9	10000	3900	6720	260	170	212	170	150	153	420	250	298
10	9890	4230	6940	270	160	203	170	140	151	1180	260	457
11	10200	4000	7800	230	160	192	170	150	151	1170	260	610
12	10200	4430	7280	230	160	187	160	140	152	1500	250	593
13	11100	4520	7910	250	160	192	160	150	157	1450	250	586
14	10900	4380	7500	200	150	172	170	160	162	1630	260	659
15	10500	3790	6730	---	---	---	180	160	169	2240	260	698
16	9440	3070	5970	---	---	---	180	170	171	1980	270	794
17	9100	3240	5980	---	---	---	190	170	177	2050	260	814
18	9990	3360	6250	---	---	---	200	170	182	1840	270	833
19	10100	3790	6600	---	---	---	200	180	185	2240	310	1030
20	10500	3920	6940	---	---	---	220	190	195	2520	310	1100
21	9070	3330	6400	---	---	---	230	110	199	2100	250	1030
22	9060	3620	6130	---	---	---	310	200	217	2950	260	1050
23	8100	3410	5690	---	---	---	280	210	225	2380	260	1070
24	8880	3890	6530	---	---	---	310	220	245	2320	200	1120
25	7460	790	4450	---	---	---	300	230	255	2480	200	1160
26	3940	720	1970	---	---	---	300	210	251	2430	340	1360
27	3170	530	1480	---	---	---	260	230	238	2550	350	1440
28	1590	390	857	---	---	---	250	230	238	3880	450	1620
29	---	---	---	---	---	---	270	240	246	4540	550	1880
30	---	---	---	---	---	---	390	240	259	4070	390	2130
31	---	---	---	---	---	---	---	---	---	4670	710	2200
MONTH	11100	390	5710	1610	150	269	390	110	192	4670	200	890

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	4860	870	2560	8230	2170	4810	8990	3150	5730	6590	2670	4560
2	5180	840	2680	8140	2320	4850	7430	2900	5030	6210	2650	4410
3	5380	790	2630	8330	2440	4930	7480	2920	5110	6140	2590	4290
4	5870	1020	2930	8130	2610	5090	7260	2920	5080	6140	2860	4410
5	5260	1110	3080	7880	2610	5090	7080	2910	4880	6150	3040	4510
6	5600	1460	3550	7760	3010	5500	6960	3040	4770	6320	2940	4360
7	5630	1550	3610	7870	3200	5550	6760	3000	4680	6450	2880	4310
8	5210	1660	3620	8090	3520	5680	6820	3110	4710	7090	2870	4480
9	5280	1800	3540	8240	3430	5530	6730	2750	4580	7400	3130	4730
10	4990	1310	3130	8520	3420	5550	6680	3100	4600	7350	2990	4810
11	5130	1410	3300	8680	3490	5690	7010	2760	4460	6880	2720	4590
12	6360	1450	3280	7270	2970	5210	6880	2770	4450	7500	3000	4940
13	7360	1510	3360	6070	2570	4350	7340	2660	4430	8300	3170	5390
14	6730	1470	3450	5960	2360	4000	7120	2410	4300	8040	2830	5310
15	6460	1560	3570	7120	2330	4020	6350	2150	3940	7170	2920	4940
16	6640	1610	3820	6740	2460	4210	6390	2320	4250	7870	3300	5370
17	7510	1930	4230	6740	2440	4250	6930	2140	4310	7870	3340	5490
18	8120	2090	4370	6570	2470	4300	6120	2130	4020	8210	3420	5520
19	8360	2180	4560	6370	2420	4390	6270	2230	4140	8060	3540	5620
20	7860	2370	4800	6400	2680	4470	6940	2430	4490	7900	3290	5310
21	7730	2390	4710	6870	2710	4670	7700	2570	4760	7680	3440	5400
22	7360	2350	4730	6350	2510	4570	6580	2720	4680	7990	3530	5500
23	7170	2380	4740	6940	2770	4730	6410	2320	4100	7760	3180	5210
24	7250	2510	4940	7500	2990	4960	6310	2490	4230	7410	2690	4940
25	8030	2720	4930	6930	3110	4970	7170	2200	3930	7390	2720	5010
26	8010	2450	4850	6490	2610	4400	6880	2170	3980	7130	2370	4700
27	8970	2580	5020	7050	2880	4550	6890	2210	4110	6020	1180	3290
28	9450	2690	5170	7790	2960	4690	7810	2200	4200	4440	560	2090
29	7800	2140	4770	7300	3010	4920	6810	2140	4210	2870	460	1440
30	8150	2110	4620	8690	3160	5310	6440	2360	4320	2630	500	1350
31	---	---	---	8970	3220	5510	6540	2520	4480	---	---	---
MONTH	9450	790	3950	8970	2170	4860	8990	2130	4480	8300	460	4540

01482100 DELAWARE RIVER AT DELAWARE MEMORIAL BRIDGE, NEAR WILMINGTON, DE--Continued

PH (UNITS), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.0	6.7	6.9	---	---	---	7.0	6.8	6.9	7.2	7.0	7.1
2	7.0	6.8	6.9	---	---	---	7.0	6.8	6.9	7.3	7.0	7.2
3	7.0	6.8	6.9	6.8	6.7	6.7	7.0	6.8	6.9	7.4	7.2	7.3
4	7.0	6.8	6.9	6.7	6.6	6.7	7.1	6.8	6.9	7.4	7.1	7.3
5	6.9	6.8	6.9	6.7	6.6	6.7	7.0	6.8	6.9	7.4	7.1	7.3
6	6.9	6.7	6.8	6.7	6.6	6.7	7.1	6.8	6.9	7.4	7.1	7.2
7	6.9	6.7	6.8	6.7	6.6	6.7	7.1	6.8	7.0	7.4	7.1	7.2
8	6.8	6.6	6.7	6.7	6.6	6.7	7.0	6.7	6.9	7.3	7.0	7.2
9	7.2	6.6	6.8	6.8	6.7	6.7	7.0	6.7	6.8	7.4	7.1	7.2
10	6.9	6.7	6.8	6.8	6.7	6.8	7.0	6.7	6.9	7.4	7.2	7.3
11	6.8	6.6	6.7	6.8	6.6	6.7	6.9	6.7	6.8	7.3	7.0	7.2
12	6.7	6.6	6.7	6.8	6.7	6.7	6.9	6.7	6.8	7.2	7.0	7.1
13	6.7	6.6	6.7	6.8	6.7	6.7	6.9	6.7	6.8	7.3	7.0	7.1
14	6.8	6.7	6.7	6.8	6.7	6.8	7.0	6.7	6.8	7.4	7.1	7.2
15	6.8	6.7	6.8	6.8	6.7	6.7	7.0	6.8	6.9	7.3	7.0	7.2
16	6.8	6.8	6.8	6.9	6.7	6.8	7.0	6.8	6.9	7.3	7.0	7.2
17	6.8	6.8	6.8	6.9	6.7	6.8	7.0	6.8	6.9	7.2	6.9	7.1
18	6.8	6.8	6.8	6.9	6.8	6.9	7.0	6.8	6.9	7.2	6.9	7.1
19	6.9	6.8	6.8	7.0	6.8	6.9	7.0	6.8	6.9	7.1	6.9	7.0
20	6.9	6.8	6.8	7.0	6.8	6.9	7.0	6.9	6.9	7.2	7.0	7.1
21	6.9	6.7	6.8	7.0	6.8	6.9	7.0	6.9	6.9	7.2	7.0	7.1
22	6.9	6.6	6.8	7.0	6.8	6.9	7.2	6.9	7.0	7.2	6.9	7.1
23	6.8	6.6	6.7	7.0	6.7	6.9	7.3	7.0	7.1	7.2	6.9	7.1
24	6.8	6.6	6.7	7.0	6.8	6.9	7.3	7.0	7.1	7.3	7.0	7.1
25	6.7	6.5	6.6	7.1	6.8	6.9	7.3	7.0	7.2	7.3	7.0	7.1
26	6.7	6.6	6.6	7.0	6.8	6.9	7.3	7.1	7.2	7.2	7.0	7.1
27	6.7	6.5	6.6	7.0	6.8	6.9	7.3	7.0	7.2	7.2	7.0	7.1
28	6.7	6.5	6.6	7.0	6.8	6.9	7.3	7.1	7.2	7.2	7.0	7.1
29	6.7	6.6	6.6	7.0	6.8	6.9	7.3	7.1	7.2	7.1	6.9	7.0
30	6.7	6.6	6.6	6.9	6.8	6.8	7.3	7.0	7.2	7.0	6.9	7.0
31	---	---	---	---	---	---	7.2	7.0	7.1	7.1	6.9	7.0
MONTH	7.2	6.5	6.8	7.1	6.6	6.8	7.3	6.7	7.0	7.4	6.9	7.1

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	7.0	6.8	6.9	6.8	6.7	6.8	6.9	6.8	6.8	6.8	6.7	6.7
2	7.1	6.9	7.0	6.8	6.8	6.8	6.9	6.8	6.8	6.8	6.7	6.7
3	7.2	6.9	7.0	---	---	---	6.9	6.8	6.8	6.7	6.7	6.7
4	7.3	6.9	7.1	---	---	---	6.9	6.9	6.9	6.7	6.6	6.7
5	7.3	7.0	7.1	---	---	---	7.0	6.9	6.9	6.7	6.6	6.6
6	7.2	6.9	7.0	---	---	---	7.0	6.8	6.9	6.8	6.6	6.7
7	7.2	6.9	7.1	6.7	6.7	6.7	7.0	6.9	7.0	6.8	6.7	6.8
8	7.2	6.9	7.1	6.7	6.7	6.7	7.0	6.9	7.0	6.8	6.7	6.8
9	7.3	7.0	7.1	6.8	6.7	6.7	7.0	6.9	6.9	6.9	6.7	6.8
10	7.3	7.0	7.1	6.8	6.7	6.7	7.0	6.8	6.9	7.0	6.8	6.9
11	7.2	6.9	7.1	6.8	6.7	6.7	6.9	6.8	6.9	7.0	6.8	6.9
12	7.2	7.0	7.1	6.8	6.7	6.7	6.9	6.8	6.8	7.0	6.8	6.9
13	7.2	6.9	7.1	6.8	6.7	6.8	6.9	6.8	6.8	7.0	6.8	6.9
14	7.2	6.9	7.0	6.8	6.6	6.7	6.9	6.8	6.9	7.0	6.8	6.9
15	7.2	6.9	7.0	6.7	6.5	6.6	6.9	6.8	6.9	7.0	6.8	6.9
16	7.1	6.8	7.0	6.8	6.6	6.7	6.9	6.8	6.9	7.0	6.8	6.9
17	7.1	6.8	6.9	6.8	6.7	6.8	6.9	6.8	6.9	7.0	6.8	6.9
18	7.1	6.8	6.9	6.8	6.7	6.8	6.9	6.8	6.9	7.0	6.8	6.9
19	7.1	6.1	6.9	6.8	6.7	6.8	6.9	6.8	6.8	7.0	6.8	6.9
20	7.1	6.8	6.9	6.9	6.6	6.7	6.9	6.8	6.8	7.0	6.8	6.9
21	7.1	6.8	7.0	6.8	6.6	6.7	6.9	6.7	6.8	6.9	6.8	6.9
22	7.1	6.8	7.0	6.8	6.6	6.7	6.8	6.6	6.8	6.9	6.7	6.8
23	7.1	6.8	7.0	6.8	6.7	6.7	6.8	6.7	6.8	6.9	6.7	6.8
24	7.2	6.9	7.0	6.9	6.7	6.8	6.9	6.8	6.8	6.9	6.7	6.8
25	7.1	6.8	6.9	---	---	---	6.9	6.8	6.8	6.9	6.6	6.8
26	6.9	6.7	6.8	---	---	---	6.8	6.7	6.8	6.9	6.6	6.8
27	6.9	6.7	6.8	---	---	---	6.8	6.6	6.7	6.9	6.6	6.8
28	6.8	6.7	6.7	---	---	---	6.8	6.6	6.7	6.9	6.6	6.7
29	---	---	---	---	---	---	6.8	6.6	6.7	7.0	6.6	6.8
30	---	---	---	---	---	---	6.8	6.6	6.7	7.0	6.7	6.8
31	---	---	---	---	---	---	---	---	---	6.9	6.7	6.8
MONTH	7.3	6.1	7.0	6.9	6.5	6.7	7.0	6.6	6.8	7.0	6.6	6.8

01482100 DELAWARE RIVER AT DELAWARE MEMORIAL BRIDGE, NEAR WILMINGTON, DE--Continued

PH (UNITS), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	6.9	6.7	6.8	7.0	6.6	6.8	7.1	6.9	7.0	7.0	6.8	6.9
2	7.0	6.7	6.8	7.0	6.7	6.8	7.1	6.8	6.9	7.0	6.7	6.9
3	7.0	6.7	6.8	7.0	6.7	6.8	7.0	6.8	6.9	7.0	6.7	6.9
4	7.0	6.7	6.9	6.9	6.6	6.8	7.0	6.8	6.9	7.0	6.7	6.9
5	7.0	6.7	6.9	6.9	6.6	6.8	7.0	6.8	6.9	7.0	6.8	6.9
6	7.0	6.7	6.9	6.9	6.6	6.8	7.0	6.8	6.9	7.0	6.8	6.9
7	7.1	6.8	6.9	6.9	6.6	6.8	7.0	6.8	6.9	7.0	6.7	6.9
8	7.1	6.8	7.0	6.9	6.7	6.8	7.0	6.8	6.9	7.0	6.8	6.9
9	7.2	6.9	7.0	6.9	6.6	6.8	7.0	6.8	6.9	7.2	6.8	7.0
10	7.2	6.8	7.0	6.9	6.7	6.8	6.9	6.8	6.9	7.2	6.8	7.0
11	7.2	6.9	7.0	6.9	6.7	6.8	6.9	6.7	6.8	7.1	6.8	7.0
12	7.2	6.9	7.0	6.9	6.7	6.8	6.9	6.7	6.8	7.2	6.9	7.0
13	7.2	6.8	7.0	6.9	6.7	6.8	6.9	6.7	6.8	7.2	6.9	7.1
14	7.2	6.8	7.0	6.9	6.7	6.8	6.9	6.7	6.8	7.3	6.9	7.1
15	7.1	6.7	6.9	7.0	6.7	6.8	6.9	6.7	6.8	7.2	6.9	7.1
16	7.1	6.7	6.9	7.0	6.7	6.8	6.9	6.7	6.8	7.3	6.9	7.1
17	7.1	6.7	6.9	6.9	6.7	6.8	6.9	6.7	6.8	7.2	6.9	7.1
18	7.1	6.7	6.9	6.9	6.6	6.8	6.9	6.7	6.8	7.2	6.9	7.1
19	7.1	6.7	6.9	6.9	6.7	6.8	6.9	6.7	6.8	7.2	6.9	7.1
20	7.1	6.7	6.9	6.9	6.7	6.8	6.9	6.7	6.8	7.2	6.8	7.0
21	7.0	6.7	6.9	6.9	6.7	6.8	6.9	6.7	6.8	7.1	6.9	7.0
22	7.0	6.7	6.8	7.0	6.7	6.9	7.0	6.7	6.9	7.1	6.8	7.0
23	7.1	6.7	6.9	7.1	6.8	6.9	7.1	6.7	6.9	7.1	6.8	6.9
24	7.1	6.7	6.9	7.1	6.8	7.0	7.1	6.8	6.9	7.1	6.7	6.9
25	7.1	6.7	6.9	7.1	6.9	7.0	7.2	6.8	6.9	7.1	6.8	7.0
26	7.1	6.7	6.9	7.2	6.9	7.0	7.1	6.8	6.9	7.1	6.8	7.0
27	7.1	6.7	6.9	7.2	6.9	7.0	7.1	6.8	6.9	7.0	6.6	6.8
28	7.1	6.7	6.8	7.2	6.9	7.0	7.1	6.8	6.9	6.9	6.4	6.6
29	7.0	6.7	6.8	7.2	6.9	7.0	7.1	6.8	6.9	6.7	6.4	6.6
30	7.0	6.7	6.8	7.2	6.9	7.0	7.1	6.8	6.9	6.7	6.4	6.6
31	---	---	---	7.1	6.9	7.0	7.0	6.8	6.9	---	---	---
MONTH	7.2	6.7	6.9	7.2	6.6	6.9	7.2	6.7	6.9	7.3	6.4	6.9

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	19.5	18.5	19.0	---	---	---	6.0	4.5	5.0	1.5	0.5	1.0
2	19.0	18.0	18.5	---	---	---	5.5	4.5	5.0	1.5	0.5	1.0
3	19.0	18.0	18.5	9.5	9.5	9.5	5.0	4.0	4.5	1.0	0.5	0.5
4	18.5	18.0	18.5	9.5	9.5	9.5	4.5	3.5	4.0	1.0	0.5	0.5
5	18.5	18.0	18.0	9.5	9.0	9.5	4.5	3.5	4.0	1.0	0.0	0.5
6	18.5	18.0	18.0	9.0	9.0	9.0	4.5	3.0	4.0	1.0	0.5	0.5
7	19.0	18.0	18.5	9.0	8.5	9.0	5.0	3.5	4.0	1.0	0.5	0.5
8	19.0	18.5	18.5	8.5	8.0	8.5	5.0	3.5	4.5	0.5	0.5	0.5
9	19.0	18.5	18.5	8.0	7.0	8.0	5.0	4.0	4.5	0.5	0.0	0.5
10	18.5	18.0	18.5	8.5	7.5	8.0	5.0	4.0	4.5	0.5	0.0	0.5
11	18.0	18.0	18.0	8.0	7.5	8.0	5.0	4.5	4.5	0.5	0.0	0.5
12	18.0	17.0	17.5	8.0	7.0	7.5	5.0	4.0	4.5	0.5	0.0	0.5
13	17.0	17.0	17.0	7.5	7.0	7.0	5.0	4.5	4.5	1.0	0.0	0.5
14	17.0	16.5	17.0	7.5	6.5	7.0	4.5	3.5	4.0	1.0	0.5	0.5
15	16.5	16.0	16.5	7.0	6.5	7.0	4.5	3.5	4.0	1.0	0.5	1.0
16	16.5	16.5	16.5	7.0	6.0	6.5	4.5	3.5	4.0	1.0	0.5	0.5
17	16.0	15.0	15.5	7.0	6.0	6.5	4.5	3.0	4.0	0.5	0.5	0.5
18	15.5	15.0	15.0	7.0	6.0	6.5	4.5	3.5	4.0	1.0	0.5	0.5
19	15.0	14.5	15.0	7.5	6.0	6.5	4.5	3.5	4.0	1.0	0.5	0.5
20	15.0	14.0	14.5	7.0	6.0	6.5	4.5	3.5	4.0	1.0	0.5	0.5
21	14.5	14.0	14.5	7.0	6.0	6.5	4.5	4.0	4.0	1.0	0.5	1.0
22	14.0	13.5	13.5	7.0	5.5	6.5	4.0	2.0	3.5	1.0	0.5	0.5
23	13.5	13.0	13.0	6.5	5.5	6.0	3.5	2.0	3.0	1.0	0.5	1.0
24	13.0	12.0	12.5	6.0	5.0	5.5	3.5	1.5	2.5	1.0	0.5	1.0
25	13.0	12.0	12.5	6.0	5.0	5.5	3.0	1.5	2.0	1.0	0.5	1.0
26	12.5	11.5	12.0	6.0	5.0	5.5	3.0	1.5	2.0	1.0	0.5	1.0
27	11.5	11.0	11.5	6.0	5.0	5.5	3.0	1.5	2.0	1.0	0.5	1.0
28	11.5	10.5	11.0	6.0	5.5	6.0	2.5	1.5	1.5	1.0	0.5	1.0
29	11.0	10.5	10.5	6.5	5.5	6.0	2.5	1.0	1.5	0.5	0.5	0.5
30	10.5	10.0	10.5	6.0	5.0	5.5	2.5	1.0	1.5	1.0	0.5	0.5
31	---	---	---	---	---	---	2.0	1.0	1.5	1.0	0.5	0.5
MONTH	19.5	10.0	15.5	9.5	5.0	7.0	6.0	1.0	3.5	1.5	0.0	0.5

01482100 DELAWARE RIVER AT DELAWARE MEMORIAL BRIDGE, NEAR WILMINGTON, DE--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR CTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	1.0	0.5	1.0	5.5	5.0	5.5	10.0	9.5	9.5	18.0	17.0	17.0
2	1.0	0.5	1.0	5.5	5.0	5.5	10.0	9.5	9.5	18.0	17.0	17.5
3	1.0	0.5	1.0	---	---	---	11.0	9.5	10.5	18.5	17.5	18.0
4	1.0	0.5	1.0	---	---	---	11.5	10.0	10.5	18.0	17.5	18.0
5	1.0	0.5	1.0	---	---	---	12.0	10.0	11.0	18.5	17.5	18.0
6	1.0	0.5	0.5	---	---	---	11.5	10.5	11.0	19.0	18.0	18.5
7	1.0	0.5	0.5	7.5	7.0	7.0	11.0	9.5	10.5	19.0	18.5	18.5
8	1.0	0.5	1.0	7.5	6.5	7.0	10.5	9.5	10.0	19.0	18.5	18.5
9	1.0	0.5	1.0	7.5	7.0	7.0	10.0	9.5	9.5	18.5	17.0	18.0
10	1.0	0.5	1.0	8.0	7.0	7.5	10.0	9.5	9.5	17.0	16.5	16.5
11	1.5	1.0	1.0	8.5	7.5	8.0	11.0	9.5	10.0	17.0	16.0	16.5
12	1.5	1.0	1.5	8.5	7.5	8.0	11.5	10.0	11.0	17.5	16.5	17.0
13	1.5	1.0	1.5	9.0	8.0	8.5	12.0	11.0	11.5	18.0	17.0	17.5
14	2.5	1.5	1.5	9.5	8.5	9.0	12.5	11.5	12.0	18.0	17.0	17.5
15	2.5	1.5	2.0	10.0	8.5	9.5	12.5	11.5	12.0	18.5	17.5	18.0
16	2.5	1.5	2.0	11.0	9.5	10.0	13.0	12.0	12.5	18.5	18.0	18.0
17	2.0	1.5	1.5	11.0	10.0	10.5	13.5	12.5	13.0	19.0	18.0	18.5
18	2.0	1.5	1.5	10.5	10.0	10.5	14.0	13.0	13.5	20.0	19.0	19.5
19	2.0	1.5	1.5	10.5	9.0	9.5	14.0	13.5	14.0	20.0	19.5	20.0
20	2.0	1.5	2.0	9.5	9.0	9.5	14.5	13.5	14.0	21.0	20.0	20.0
21	2.0	1.5	2.0	9.5	8.5	9.0	15.0	14.0	14.5	21.5	20.5	21.0
22	3.0	1.5	2.0	9.0	8.5	9.0	16.0	14.5	15.0	22.0	21.0	21.5
23	3.5	2.0	2.5	8.5	8.0	8.5	16.5	15.5	16.0	22.5	21.5	22.0
24	3.5	2.0	3.0	8.0	8.0	8.0	16.5	16.0	16.0	23.0	22.0	22.5
25	4.5	3.0	3.5	---	---	---	17.0	16.0	16.5	23.0	22.5	22.5
26	5.0	4.0	4.5	---	---	---	17.0	16.0	16.5	23.5	22.5	23.0
27	5.5	4.0	5.0	---	---	---	17.0	16.0	16.5	24.0	23.0	23.5
28	6.0	5.0	5.5	---	---	---	17.5	16.5	16.5	24.0	23.0	23.5
29	---	---	---	---	---	---	17.0	16.0	16.5	24.0	23.5	23.5
30	---	---	---	---	---	---	17.5	16.5	17.0	23.5	23.0	23.0
31	---	---	---	---	---	---	---	---	---	23.5	22.5	23.0
MONTH	6.0	0.5	2.0	11.0	5.0	8.5	17.5	9.5	13.0	24.0	16.0	19.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	23.0	22.5	23.0	26.5	26.0	26.0	27.5	27.0	27.5	28.5	27.0	28.0
2	23.5	22.5	23.0	26.5	26.0	26.0	28.0	27.0	27.5	28.5	27.5	28.0
3	23.5	23.0	23.0	27.0	25.5	26.0	28.0	27.0	27.5	28.5	28.0	28.5
4	23.5	22.5	23.0	26.5	26.0	26.5	28.0	27.0	27.5	28.5	28.0	28.0
5	23.0	22.5	23.0	27.5	26.5	26.5	28.5	27.5	28.0	28.5	28.0	28.0
6	23.0	22.0	22.5	27.5	27.0	27.0	29.0	28.0	28.5	28.5	28.0	28.0
7	22.5	21.5	22.0	27.5	27.0	27.0	29.0	28.5	29.0	28.5	27.5	28.0
8	22.0	21.0	21.5	28.0	27.0	27.0	29.5	28.5	29.0	28.0	27.0	27.5
9	21.5	21.0	21.0	28.0	27.5	27.5	29.5	29.0	29.0	27.5	26.0	27.0
10	21.0	20.5	21.0	28.0	27.5	27.5	29.5	29.0	29.0	27.0	26.0	26.5
11	21.0	20.0	20.5	27.5	27.5	27.5	29.5	29.0	29.0	26.5	25.5	26.0
12	21.5	20.5	21.0	28.0	27.5	27.5	29.5	29.0	29.5	26.0	25.0	25.5
13	22.0	21.0	21.5	28.5	27.5	28.0	29.5	29.0	29.0	25.5	25.0	25.0
14	22.5	21.5	22.0	28.5	28.0	28.0	29.0	28.5	29.0	25.0	24.5	25.0
15	22.5	21.5	22.0	29.0	28.0	28.5	29.0	28.5	28.5	24.5	24.0	24.5
16	23.0	22.0	22.5	29.5	28.5	29.0	29.0	28.5	28.5	24.5	23.5	24.0
17	23.5	22.5	22.5	30.0	29.0	29.5	29.0	28.5	28.5	24.5	23.5	24.0
18	24.0	22.5	23.5	30.5	29.0	29.5	28.5	28.0	28.0	25.0	24.0	24.5
19	24.5	23.5	24.0	30.5	29.5	30.0	28.0	27.5	27.5	25.5	24.5	25.0
20	24.5	24.0	24.0	30.0	30.0	30.0	28.0	27.0	27.5	25.5	24.5	25.0
21	24.5	24.0	24.0	30.5	30.0	30.0	27.5	26.5	27.0	25.0	24.5	24.5
22	24.5	24.0	24.0	30.5	30.0	30.0	27.5	26.5	27.0	24.5	24.0	24.5
23	24.5	24.0	24.0	30.0	28.5	29.5	27.0	26.5	27.0	24.5	24.0	24.0
24	25.0	24.0	24.5	29.5	28.5	29.0	27.0	26.5	27.0	24.5	23.5	24.0
25	24.5	24.5	24.5	29.0	28.0	28.5	27.0	26.0	26.5	24.0	23.0	23.5
26	25.5	24.5	24.5	28.5	27.5	28.0	27.0	26.0	26.5	23.5	23.0	23.0
27	25.5	24.5	25.0	28.0	27.0	27.5	27.0	26.0	26.5	23.5	23.0	23.5
28	26.0	25.0	25.5	28.0	27.0	27.5	27.0	26.0	26.5	23.5	23.0	23.0
29	26.0	25.5	25.5	28.0	27.0	27.5	27.5	26.5	27.0	23.0	22.5	23.0
30	26.0	25.5	26.0	27.5	26.5	27.0	28.0	27.0	27.5	23.0	22.5	22.5
31	---	---	---	27.5	26.5	27.0	28.0	27.0	27.5	---	---	---
MONTH	26.0	20.0	23.0	30.5	25.5	28.0	29.5	26.0	28.0	28.5	22.5	25.5

01482100 DELAWARE RIVER AT DELAWARE MEMORIAL BRIDGE, NEAR WILMINGTON, DE--Continued

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	5.4	3.8	4.7	---	---	---	8.7	6.7	7.7	10.4	9.0	9.7
2	5.6	4.6	5.1	---	---	---	8.9	7.4	8.1	11.0	9.3	10.2
3	5.6	4.3	5.1	7.4	6.7	7.1	8.8	6.8	7.9	11.6	9.6	10.5
4	5.8	4.6	5.2	7.1	6.4	6.9	9.4	7.3	8.1	11.5	9.6	10.5
5	5.9	4.7	5.5	7.2	6.5	6.8	8.9	6.9	7.8	11.3	9.7	10.5
6	5.9	4.5	5.2	7.4	6.8	7.1	9.2	6.9	7.9	11.4	9.7	10.6
7	---	---	---	7.6	6.9	7.3	9.3	6.8	8.1	11.4	9.6	10.7
8	---	---	---	7.9	7.2	7.6	9.4	7.0	8.0	11.3	9.7	10.5
9	---	---	---	8.7	7.4	7.9	9.1	6.7	8.0	11.5	9.9	10.8
10	---	---	---	8.1	7.2	7.6	9.2	7.0	8.1	11.5	10.3	11.0
11	---	---	---	8.0	7.1	7.6	8.5	6.8	7.7	11.4	10.0	10.7
12	---	---	---	7.9	6.9	7.5	8.4	6.8	7.5	11.1	9.5	10.3
13	---	---	---	7.8	7.0	7.4	8.2	6.7	7.4	11.8	10.2	10.9
14	---	---	---	7.9	7.1	7.5	10.1	7.0	8.3	12.1	10.4	11.1
15	---	---	---	7.9	7.0	7.4	9.9	7.7	8.8	11.7	10.2	11.0
16	---	---	---	7.8	6.8	7.3	9.8	7.7	8.7	11.6	10.0	10.8
17	---	---	---	7.6	6.7	7.1	10.0	7.5	8.7	11.3	9.6	10.6
18	5.7	5.1	5.4	7.5	6.7	7.2	9.3	7.4	8.4	11.2	9.7	10.5
19	5.7	4.9	5.3	7.9	6.5	7.1	9.4	7.5	8.2	11.1	9.6	10.4
20	6.2	4.9	5.2	7.7	6.3	7.0	9.5	7.5	8.3	11.5	9.7	10.6
21	6.4	5.0	5.5	7.5	6.0	6.8	8.9	7.4	8.2	11.3	9.5	10.4
22	6.1	5.3	5.7	8.1	6.5	7.2	11.1	8.3	9.3	11.1	9.3	10.2
23	6.2	5.4	5.8	8.4	6.6	7.4	11.9	9.3	10.2	11.5	9.4	10.4
24	6.2	5.5	5.8	8.6	6.8	7.6	11.3	9.1	10.3	11.5	9.6	10.6
25	6.1	5.2	5.7	8.6	6.8	7.6	11.9	9.6	10.7	11.3	9.5	10.4
26	6.2	5.4	5.8	8.2	6.6	7.5	11.4	9.6	10.6	11.1	9.3	10.2
27	6.6	5.5	6.1	8.1	6.7	7.4	11.4	9.6	10.6	11.0	9.0	10.1
28	6.3	5.5	5.9	8.0	6.6	7.3	11.6	9.3	10.9	11.2	9.0	10.2
29	6.2	5.6	6.0	7.8	6.4	7.1	11.2	9.3	10.3	10.6	8.3	9.8
30	6.0	5.7	5.9	7.7	6.5	7.1	10.8	8.7	9.7	10.4	8.8	9.7
31	---	---	---	---	---	---	10.2	8.7	9.5	10.7	8.6	9.8
MONTH	6.6	3.8	5.5	8.7	6.0	7.3	11.9	6.7	8.8	12.1	8.3	10.4

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	10.5	8.5	9.7	6.5	5.7	6.0	8.9	8.7	8.8	6.5	2.7	4.5
2	11.1	8.7	9.8	7.1	6.0	6.5	8.9	8.4	8.6	6.4	3.2	4.8
3	11.6	9.1	10.3	---	---	---	8.8	8.2	8.4	6.0	3.4	4.7
4	11.5	8.8	10.2	---	---	---	8.5	7.9	8.2	6.1	3.6	4.8
5	11.6	8.9	10.4	---	---	---	8.6	7.7	8.1	5.8	3.6	4.6
6	11.3	7.1	9.9	---	---	---	9.3	7.9	8.6	5.2	3.5	4.5
7	11.6	9.1	10.4	9.1	7.7	8.2	9.4	8.7	9.1	5.2	3.6	4.3
8	11.6	9.2	10.5	9.7	8.0	8.6	9.5	9.1	9.3	5.0	3.7	4.3
9	11.7	9.1	10.5	10.0	8.1	8.8	9.5	9.1	9.3	6.4	4.3	5.0
10	11.4	9.0	10.3	9.9	8.2	9.0	9.4	8.8	9.1	7.2	5.2	6.4
11	11.2	8.7	10.1	9.7	8.4	9.0	9.1	8.6	8.8	7.4	5.9	6.7
12	10.9	8.6	9.8	9.5	8.6	9.0	8.8	8.4	8.6	7.4	5.8	6.5
13	11.0	8.3	9.8	9.2	8.7	9.0	8.5	8.2	8.3	7.2	5.8	6.5
14	10.9	8.1	9.7	9.1	8.1	8.7	8.3	8.0	8.1	7.3	5.9	6.6
15	10.7	7.6	9.3	8.6	7.8	8.1	8.2	7.8	8.1	7.6	5.9	6.6
16	10.6	7.0	8.9	9.0	8.0	8.5	8.1	7.4	7.8	7.3	6.0	6.6
17	10.6	7.1	9.0	9.0	8.7	8.8	7.9	7.1	7.6	7.1	6.3	6.6
18	10.8	7.3	9.1	9.0	8.6	8.7	7.9	6.7	7.3	6.9	6.2	6.5
19	10.7	7.4	9.2	9.0	8.6	8.9	7.4	6.4	7.0	6.8	6.0	6.3
20	10.6	7.4	9.1	9.1	8.7	8.8	7.3	6.1	6.8	6.6	5.7	6.1
21	10.6	7.4	9.2	8.9	8.7	8.8	7.0	5.6	6.5	6.3	5.5	5.8
22	10.8	8.0	9.4	9.1	8.6	8.8	6.7	5.2	6.2	6.4	5.0	5.5
23	10.4	7.8	9.2	9.6	8.9	9.2	6.6	5.2	6.0	5.8	4.5	5.1
24	11.2	8.2	9.8	9.5	9.2	9.4	6.8	5.5	6.2	5.5	4.0	4.7
25	10.5	5.9	8.9	---	---	---	6.9	5.4	6.2	5.3	3.3	4.3
26	8.7	5.5	7.0	---	---	---	6.6	5.0	6.0	5.3	3.0	4.2
27	7.8	5.2	6.3	---	---	---	6.1	3.7	5.3	5.1	2.6	4.0
28	6.5	5.4	5.9	---	---	---	6.0	3.2	5.0	5.3	2.5	3.8
29	---	---	---	---	---	---	5.9	2.8	4.5	6.0	2.8	4.2
30	---	---	---	---	---	---	6.3	2.8	4.5	5.4	3.5	4.5
31	---	---	---	---	---	---	---	---	---	5.5	3.1	4.1
MONTH	11.7	5.2	9.3	10.0	5.7	8.5	9.5	2.8	7.4	7.6	2.5	5.3

01482100 DELAWARE RIVER AT DELAWARE MEMORIAL BRIDGE, NEAR WILMINGTON, DE--Continued

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	5.4	2.9	4.2	5.4	2.0	3.8	5.5	3.2	4.6	5.1	2.8	4.2
2	5.6	2.9	4.2	5.3	1.8	3.7	5.0	2.6	4.1	5.3	2.8	4.1
3	5.5	2.7	4.2	5.1	2.0	3.7	4.7	2.5	3.9	5.1	2.5	4.0
4	6.0	2.9	4.6	4.9	2.0	3.7	4.5	2.2	3.7	5.5	2.8	4.2
5	5.8	3.1	4.7	4.6	1.7	3.4	4.5	2.3	3.6	5.4	3.1	4.3
6	5.9	3.4	4.9	4.6	1.8	3.5	4.5	2.4	3.6	5.2	2.9	4.1
7	6.3	3.6	5.2	4.2	1.9	3.4	4.6	2.3	3.5	5.5	2.7	4.2
8	6.8	4.1	5.7	4.5	2.1	3.4	4.5	2.6	3.6	5.8	3.4	4.6
9	7.1	4.8	6.1	4.3	1.9	3.2	4.4	2.5	3.5	6.4	3.5	4.9
10	7.1	4.4	5.9	4.5	1.9	3.4	4.4	2.5	3.5	6.3	4.0	5.2
11	7.4	5.1	6.4	4.7	2.5	3.6	4.4	2.4	3.4	6.1	3.7	5.1
12	7.4	5.0	6.4	4.7	2.6	3.7	4.3	2.0	3.3	6.2	4.1	5.4
13	7.4	4.7	6.1	4.4	2.5	3.7	4.4	2.2	3.3	6.6	4.5	5.8
14	7.1	4.2	5.7	4.5	2.2	3.5	4.1	2.1	3.2	6.8	4.8	6.1
15	6.8	3.6	5.2	5.0	2.3	3.6	3.9	1.9	3.1	6.8	4.6	6.0
16	6.4	3.1	4.9	4.7	2.2	3.6	4.2	2.1	3.4	7.4	5.4	6.3
17	6.5	3.0	5.0	4.9	2.2	3.7	4.5	2.4	3.7	7.1	5.0	6.4
18	6.6	2.9	4.9	4.6	2.1	3.6	4.2	2.0	3.4	7.0	4.8	6.2
19	6.4	2.7	4.6	4.6	1.9	3.5	4.5	2.1	3.4	6.8	4.7	6.0
20	6.1	2.7	4.6	4.4	1.9	3.4	4.2	2.1	3.4	6.6	4.2	5.7
21	5.9	2.8	4.6	4.6	1.9	3.4	4.5	2.3	3.6	6.7	4.5	5.8
22	5.9	3.0	4.7	5.0	2.3	3.8	5.0	2.9	4.1	6.6	4.4	5.7
23	6.5	3.2	4.9	5.7	3.1	4.4	5.8	2.5	4.0	6.3	3.5	5.2
24	6.3	3.1	5.0	5.7	3.5	4.7	5.5	3.1	4.4	6.3	2.9	5.0
25	6.1	3.4	4.9	5.8	4.3	5.0	6.1	2.7	4.3	6.8	4.1	5.6
26	6.0	2.7	4.5	5.9	3.8	4.9	6.1	2.8	4.4	6.8	4.4	5.8
27	6.0	2.6	4.3	5.9	4.0	5.0	6.1	2.8	4.6	6.5	2.4	4.8
28	6.0	2.4	4.2	6.1	3.9	5.0	6.2	2.9	4.6	5.6	1.3	3.4
29	5.4	1.9	3.8	6.0	3.6	4.9	5.7	2.8	4.5	4.4	1.1	2.7
30	5.5	2.0	3.8	6.1	3.3	4.7	5.5	2.9	4.5	4.3	1.1	2.6
31	---	---	---	5.7	3.1	4.6	5.3	2.7	4.3	---	---	---
MONTH	7.4	1.9	4.9	6.1	1.7	3.9	6.2	1.9	3.8	7.4	1.1	5.0

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE

LOCATION.--Lat 39°30'03", long 75°34'07", New Castle County, Hydrologic Unit 02040205, water-quality recorder located on platform about 0.4 mi (0.6 km) downstream from Reedy Island near Port Penn.

DRAINAGE AREA.--11,200 mi^2 (29,100 km^2), approximately.

PERIOD OF RECORD.--October 1963 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1963 to current year.
pH: February 1970 to current year.
WATER TEMPERATURES: February 1970 to current year.
DISSOLVED OXYGEN: February 1970 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 35,400 micromhos Nov. 7, 1963; minimum, 100 micromhos on several days in August 1969, April 1970, and February 1974.
pH: Maximum, 8.8 Aug. 29, Sept. 2, 1973; minimum, 5.4 Dec. 31, 1972.
WATER TEMPERATURES: Maximum, 29.5°C Aug. 5, 1975; minimum, freezing point on many days during winter period
DISSOLVED OXYGEN: Maximum, 17.1 mg/L Dec. 16, 19, 1976; minimum, 0.3 mg/L Sept. 16, 17, 1971.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 22,000 micromhos Feb. 25; minimum, 200 micromhos on many days during Mar. and Apr.
pH: Maximum, 8.6 Feb. 25; minimum, 6.6 Mar. 16, 17.
DISSOLVED OXYGEN: Maximum, 17.1 mg/L Dec. 16, 19; minimum, 4.2 mg/L July 9.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	16600	9760	12400	4440	1800	2840	12400	4000	6950			
2	18400	10800	14100	7200	1920	3940	11800	4440	6600			
3	17000	9880	13600	7640	2200	3930	7920	2160	4520			
4	17900	10100	13500	7200	2280	3670	9400	3600	5040			
5	17000	10000	13800	5800	2160	3550	8840	3200	4660			
6	17600	10000	13100	4600	1960	2830	11200	3920	5980			
7	16200	9920	12400	3120	1200	2000	13200	4720	7390			
8	16300	9640	11900	5200	1160	2250	9800	4000	5890			
9	18700	10200	13100	8960	1760	3860	9160	3640	5060			
10	11300	6080	9050	6600	1400	3200	7960	3200	4480			
11	9360	5360	6990	4800	2800	---	4200	2160	3270			
12	10000	5120	6400	---	---	---	8040	2360	3850			
13	10500	5080	6650	---	---	---	6840	1640	3550			
14	7520	4560	5580	---	---	---	7600	1760	3450			
15	9800	4000	5870	---	---	---	5760	1920	3110			
16	8320	2920	4990	11000	3640	6830	9000	1880	4250			
17	12300	3600	6370	11200	4000	6530	11000	3240	6080			
18	13200	5240	8090	10300	4360	6130	8960	3160	4770			
19	14400	4800	8660	11800	4160	6310	8440	2960	4260			
20	15200	5400	8700	12200	4320	6440	10600	3200	5080			
21	14400	5400	8000	11600	4360	6040	6960	3360	4540			
22	6440	3800	5250	9200	3640	5320	---	---	---			
23	6440	2840	4350	6960	3360	4500	---	---	---			
24	7000	2800	4140	8760	3200	4430	---	---	---			
25	7160	2800	4050	8960	3240	4760	---	---	---			
26	5360	2600	3650	8560	3600	5110	---	---	---			
27	7760	2360	4010	9080	3760	5140	---	---	---			
28	7000	2200	3530	8800	3800	5290	---	---	---			
29	5000	2160	3040	9000	4160	5690	---	---	---			
30	6560	2000	3210	9760	4040	5760	---	---	---			
31	7360	2160	4030	---	---	---	---	---	---			
MONTH	18700	2000	7820	12200	1160	4650	13200	1640	4890			

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	14400	5360	10100	4440	200	1940	5640	400	2390
2	---	---	---	13000	3200	7860	4360	200	1650	5000	760	2590
3	---	---	---	12300	2560	6700	2320	200	883	4680	600	2080
4	---	---	---	13400	2960	7260	960	200	387	5400	800	2530
5	---	---	---	10800	2720	6080	1600	200	522	5880	1400	3110
6	---	---	---	7200	1360	3290	1160	440	866	5960	1760	3430
7	---	---	---	4200	720	2080	1200	800	990	5800	1800	3300
8	---	---	---	3000	200	1370	1240	1000	1160	4840	1800	3210
9	---	---	---	2800	200	932	1360	1200	1220	3600	1240	2130
10	---	---	---	2040	200	445	1400	1200	1270	9960	1200	5010
11	---	---	---	1360	200	313	1360	1200	1260	12300	3240	6810
12	---	---	---	1240	200	273	1400	1200	1300	11300	3840	6440
13	---	---	---	3240	200	677	1400	1200	1330	11800	3960	6360
14	---	---	---	960	200	475	1360	400	1200	13400	4000	6680
15	---	---	---	1320	520	958	1600	560	1120	12400	4200	6610
16	---	---	---	1360	1000	1210	1320	200	963	12400	4360	6560
17	---	---	---	1320	1200	1210	3240	280	1060	11700	4000	5650
18	---	---	---	1320	1200	1210	3000	200	775	10000	3720	5360
19	---	---	---	1360	1200	1230	2360	200	648	11100	4080	6120
20	---	---	---	1320	840	1200	2600	200	597	12800	4520	7120
21	---	---	---	1360	1200	1270	2400	200	577	10600	4440	5990
22	---	---	---	1320	560	1180	2200	200	428	8920	4400	5550
23	17600	11600	14200	1400	1200	1340	2280	200	468	8720	4360	5450
24	21800	12000	16500	1400	200	1260	3480	200	1060	8840	4640	5590
25	22000	7600	14700	1760	200	903	4000	200	1720	8520	4560	5800
26	15400	7400	11100	6000	560	3460	5000	280	2690	9800	4520	6070
27	14900	7680	11000	8840	2720	5310	4400	200	1790	10700	4800	6560
28	14200	6600	10300	8560	2960	5440	4600	200	1770	13200	5120	7200
29	---	---	---	8600	2160	4700	4960	200	1880	13600	5200	7300
30	---	---	---	6800	1600	3950	5400	200	2220	14300	5280	8110
31	---	---	---	8040	1400	3750	---	---	---	13400	5480	7830
MONTH	22000	6600	13000	14400	200	2820	5400	200	1190	14300	400	5320

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	13800	5520	8050	17600	8400	11400	20400	11000	14300	13800	7520	10300
2	14000	5560	8030	16800	8160	11200	17600	9960	12700	13400	7120	9890
3	14600	5840	8100	17000	8400	11300	17900	10200	12800	12400	6360	8930
4	13800	5960	8630	17400	8720	11800	17400	9800	13100	14600	6960	9820
5	14000	6040	8860	15600	8440	11000	17000	9960	12800	14200	8160	11000
6	14500	6160	9590	15600	8560	11700	17000	9640	12600	13900	8000	10200
7	15000	6920	10800	16000	8960	12000	17600	9200	12600	14200	7520	10100
8	16200	7360	11200	16400	9120	12400	16800	7560	11900	15000	7920	10900
9	15600	7520	10600	16400	9200	12000	15000	7560	11000	15600	8840	11400
10	16200	6960	10200	18000	9560	12500	16000	7360	11400	16000	9000	11700
11	18400	7960	12600	16800	9800	12800	16400	7760	11400	15200	8960	11300
12	18600	7880	12300	15800	10000	12400	17200	7600	11700	16000	9000	11700
13	17900	7800	11800	16000	8040	11100	17400	8040	11600	16200	9640	12300
14	17800	7720	11700	16000	7640	10100	17200	7760	11100	15100	7240	10800
15	17300	8200	11800	16200	7920	10800	15600	7000	9930	14800	7360	9800
16	18000	8520	11900	17000	8400	11400	16000	7520	11100	14800	8160	11000
17	18400	8520	12500	17200	8600	11200	16400	8000	11200	15200	8360	11000
18	18200	9200	12100	16400	7920	11000	15100	7200	10100	15200	8200	11000
19	17100	8880	11800	16400	8160	11500	15200	7400	10500	15000	8560	11100
20	17600	8800	12300	17900	8800	12300	15600	7800	11200	15000	8560	11000
21	17000	8800	11700	17200	9000	12300	16200	8160	11300	15800	8560	11500
22	17400	8880	12200	16700	9000	12100	14800	8440	11100	16000	8960	11800
23	16200	8720	12000	20400	9200	14300	14700	6400	9310	15400	9000	11400
24	17500	9360	12800	20800	10400	14500	14800	7000	10100	14000	8720	10900
25	17100	9680	12400	17100	9400	12500	15800	7000	9550	15200	8840	11200
26	17000	9000	12100	17800	6840	10200	15400	7400	10100	15200	8160	11200
27	18400	9080	12400	19900	8000	11800	14700	7600	10000	12600	6800	9180
28	18600	9760	12600	20000	9360	12800	14800	7240	9690	10300	4960	7340
29	17400	9200	12100	20300	10000	13100	14200	6960	9280	9960	4440	6340
30	17400	8560	11400	20800	10300	13800	13400	6720	9220	10000	4400	6210
31	---	---	---	20800	10700	14300	14600	6960	9820	---	---	---
MONTH	18600	5520	11200	20800	6840	12100	20400	6400	11100	16200	4400	10400

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE--Continued

PH (UNITS), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.6	7.4	7.5	7.2	7.0	7.1	7.7	7.4	7.5			
2	7.6	7.5	7.5	7.4	7.0	7.2	7.7	7.4	7.5			
3	7.6	7.4	7.5	7.4	7.0	7.1	7.6	7.4	7.5			
4	7.6	7.4	7.5	7.3	7.0	7.1	7.6	7.4	7.5			
5	7.6	7.4	7.5	7.3	7.0	7.1	7.6	7.4	7.4			
6	7.6	7.3	7.4	7.2	7.0	7.1	7.6	7.4	7.5			
7	7.5	7.3	7.4	7.3	7.0	7.1	7.7	7.4	7.5			
8	7.4	7.2	7.3	7.3	7.1	7.2	7.6	7.4	7.5			
9	7.5	7.3	7.4	7.5	7.1	7.3	7.6	7.3	7.4			
10	7.5	7.3	7.4	7.4	7.1	7.2	7.5	7.3	7.4			
11	7.5	7.3	7.4	7.3	7.2	7.2	7.4	7.2	7.3			
12	7.4	7.1	7.3	---	---	---	7.5	7.2	7.3			
13	7.4	7.1	7.3	---	---	---	7.5	7.2	7.4			
14	7.6	7.1	7.3	---	---	---	7.6	7.2	7.4			
15	7.4	7.1	7.3	---	---	---	7.5	7.3	7.4			
16	7.5	7.2	7.4	7.6	7.3	7.4	7.6	7.3	7.4			
17	7.5	7.2	7.4	7.6	7.3	7.4	7.6	7.3	7.4			
18	7.6	7.3	7.4	7.6	7.3	7.4	7.6	7.3	7.4			
19	7.6	7.3	7.4	7.6	7.3	7.4	7.5	7.2	7.3			
20	7.6	7.2	7.4	7.6	7.3	7.4	7.6	7.3	7.4			
21	7.6	7.3	7.4	7.6	7.3	7.4	7.5	7.3	7.4			
22	7.6	7.2	7.4	7.5	7.3	7.4	---	---	---			
23	7.5	7.2	7.3	7.5	7.3	7.4	---	---	---			
24	7.3	7.1	7.2	7.6	7.3	7.4	---	---	---			
25	7.3	7.1	7.2	7.6	7.3	7.4	---	---	---			
26	7.3	7.1	7.2	7.6	7.3	7.4	---	---	---			
27	7.5	7.1	7.3	7.6	7.3	7.4	---	---	---			
28	7.4	7.0	7.2	7.5	7.3	7.4	---	---	---			
29	7.3	7.0	7.1	7.6	7.3	7.4	---	---	---			
30	7.3	7.0	7.1	7.6	7.3	7.5	---	---	---			
31	7.3	7.0	7.1	---	---	---	---	---	---			
MONTH	7.6	7.0	7.3	7.6	7.0	7.3	7.7	7.2	7.4			

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	7.5	7.1	7.3	7.2	7.0	7.1	7.1	6.8	6.9
2	---	---	---	7.4	7.1	7.3	7.2	7.0	7.1	7.1	6.8	6.9
3	---	---	---	7.4	7.0	7.2	7.2	6.9	7.1	7.0	6.8	6.9
4	---	---	---	7.4	7.0	7.2	7.1	6.9	7.0	7.1	6.7	6.8
5	---	---	---	7.3	7.0	7.2	7.1	6.9	7.0	7.0	6.7	6.8
6	---	---	---	7.2	6.9	7.0	7.1	6.9	7.0	7.0	6.7	6.8
7	---	---	---	7.1	6.9	7.0	7.1	6.9	7.0	7.0	6.7	6.8
8	---	---	---	7.0	6.9	6.9	7.2	7.0	7.1	6.9	6.7	6.8
9	---	---	---	7.0	6.9	6.9	7.1	7.0	7.0	7.1	6.8	6.9
10	---	---	---	7.0	6.9	6.9	7.1	6.9	7.0	7.5	6.9	7.2
11	---	---	---	6.9	6.9	6.9	7.0	6.9	7.0	7.6	7.1	7.3
12	---	---	---	6.9	6.8	6.9	7.0	6.9	6.9	7.5	7.1	7.3
13	---	---	---	7.1	6.8	7.0	6.9	6.8	6.9	7.5	7.1	7.2
14	---	---	---	7.0	6.8	6.9	7.0	6.8	6.9	7.6	7.1	7.3
15	---	---	---	6.9	6.7	6.8	7.2	6.8	6.9	7.5	7.1	7.2
16	---	---	---	6.8	6.6	6.7	6.9	6.8	6.9	7.5	7.1	7.2
17	---	---	---	6.8	6.6	6.7	7.0	6.8	6.8	7.5	7.0	7.2
18	---	---	---	6.9	6.7	6.8	7.0	6.8	6.9	7.4	7.0	7.2
19	---	---	---	7.1	6.8	7.0	7.0	6.8	6.8	7.5	7.1	7.2
20	---	---	---	7.0	6.9	6.9	6.9	6.8	6.8	7.7	7.1	7.3
21	---	---	---	7.0	6.9	6.9	6.9	6.8	6.8	7.5	7.1	7.2
22	---	---	---	7.1	6.9	7.0	6.9	6.8	6.8	7.4	7.1	7.2
23	7.7	7.5	7.6	7.3	6.8	7.1	6.9	6.8	6.8	7.3	7.0	7.1
24	7.8	7.5	7.6	7.2	6.9	7.1	7.0	6.8	6.9	7.3	7.0	7.1
25	8.6	7.4	7.6	7.2	6.9	7.1	7.0	6.8	6.9	7.3	7.0	7.1
26	7.6	7.3	7.4	7.6	7.1	7.4	7.1	6.8	7.0	7.3	7.0	7.1
27	7.6	7.2	7.4	7.8	7.3	7.5	7.0	6.8	6.9	7.3	7.0	7.1
28	7.4	7.1	7.3	7.7	7.2	7.4	7.1	6.8	6.9	7.3	7.0	7.1
29	---	---	---	7.6	7.1	7.3	7.1	6.8	6.9	7.4	7.0	7.1
30	---	---	---	7.4	7.1	7.2	7.2	6.8	6.9	7.3	7.0	7.2
31	---	---	---	7.5	7.1	7.2	---	---	---	7.2	7.0	7.1
MONTH	8.6	7.1	7.5	7.8	6.6	7.1	7.2	6.8	6.9	7.7	6.7	7.1

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE--Continued

PH (UNITS), WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	7.2	6.9	7.0	7.3	7.1	7.2	7.5	7.2	7.3	7.4	7.2	7.3
2	7.3	6.9	7.1	7.3	7.0	7.1	7.3	7.2	7.3	7.4	7.2	7.3
3	7.4	7.1	7.2	7.2	7.0	7.1	7.3	7.1	7.2	7.4	7.2	7.3
4	7.4	7.1	7.3	7.2	7.0	7.1	7.3	7.1	7.2	7.4	7.2	7.3
5	7.4	7.1	7.2	7.2	7.0	7.1	7.3	7.1	7.2	7.5	7.3	7.4
6	7.4	7.2	7.3	7.3	7.0	7.1	7.3	7.1	7.2	7.5	7.3	7.4
7	7.4	7.2	7.3	7.2	7.0	7.1	7.3	7.1	7.2	7.5	7.3	7.4
8	7.5	7.3	7.4	7.2	7.0	7.1	7.4	7.2	7.3	7.6	7.3	7.4
9	7.5	7.3	7.4	7.2	7.0	7.1	7.4	7.2	7.3	7.6	7.4	7.5
10	7.5	7.3	7.4	7.2	7.0	7.1	7.5	7.2	7.3	7.6	7.4	7.5
11	7.6	7.4	7.5	7.3	7.1	7.2	7.5	7.2	7.3	7.6	7.4	7.5
12	7.6	7.4	7.5	7.2	7.1	7.2	7.4	7.2	7.3	7.6	7.4	7.5
13	7.6	7.3	7.5	7.2	7.1	7.1	7.5	7.2	7.3	7.6	7.4	7.5
14	7.5	7.3	7.4	7.2	7.1	7.1	7.4	7.2	7.3	7.5	7.4	7.5
15	7.5	7.3	7.4	7.2	7.0	7.1	7.4	7.1	7.2	7.5	7.4	7.5
16	7.5	7.3	7.3	7.2	7.0	7.1	7.4	7.2	7.3	7.6	7.4	7.5
17	7.5	7.3	7.4	7.2	7.0	7.1	7.4	7.2	7.3	7.5	7.4	7.4
18	7.5	7.3	7.4	7.2	7.0	7.1	7.4	7.2	7.3	7.5	7.3	7.4
19	7.4	7.3	7.3	7.2	7.0	7.1	7.4	7.2	7.3	7.5	7.3	7.4
20	7.4	7.3	7.3	7.2	7.0	7.1	7.4	7.2	7.3	7.5	7.3	7.4
21	7.4	7.2	7.3	7.2	7.0	7.1	7.5	7.3	7.4	7.5	7.3	7.4
22	7.4	7.2	7.3	7.3	7.1	7.2	7.4	7.3	7.4	7.5	7.3	7.4
23	7.4	7.3	7.3	7.5	7.2	7.3	7.4	7.3	7.3	7.5	7.3	7.4
24	7.5	7.3	7.4	7.5	7.3	7.4	7.4	7.3	7.3	7.4	7.3	7.4
25	7.4	7.3	7.4	7.4	7.3	7.3	7.5	7.3	7.4	7.5	7.3	7.4
26	7.4	7.2	7.3	7.5	7.2	7.3	7.5	7.3	7.4	7.5	7.3	7.4
27	7.4	7.2	7.3	7.6	7.3	7.4	7.5	7.3	7.4	7.4	7.3	7.3
28	7.8	7.2	7.3	7.6	7.3	7.4	7.5	7.3	7.4	7.3	7.2	7.3
29	7.3	7.1	7.2	7.6	7.3	7.4	7.4	7.3	7.3	7.4	7.2	7.3
30	7.3	7.1	7.2	7.6	7.3	7.4	7.4	7.2	7.3	7.4	7.1	7.3
31	---	---	---	7.5	7.2	7.4	7.4	7.2	7.3	---	---	---
MONTH	7.8	6.9	7.3	7.6	7.0	7.2	7.5	7.1	7.3	7.6	7.1	7.4

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	19.0	18.5	19.0	10.5	9.5	10.0	5.0	4.0	4.5			
2	18.5	18.0	18.5	10.5	9.5	10.0	4.5	3.5	4.0			
3	18.5	18.0	18.0	10.5	9.5	10.0	4.0	2.5	3.5			
4	19.0	18.0	18.5	10.5	9.5	10.0	3.5	2.5	3.0			
5	18.0	18.0	18.0	10.0	9.5	10.0	3.5	2.0	3.0			
6	19.0	17.5	18.0	9.5	9.0	9.5	3.5	2.5	3.0			
7	19.0	18.0	18.5	9.5	8.0	9.0	4.0	3.0	3.5			
8	19.0	18.5	18.5	9.0	8.0	8.5	3.5	2.0	3.0			
9	19.0	18.5	18.5	8.5	7.5	8.0	3.0	1.5	2.5			
10	18.5	17.5	18.0	8.5	7.0	7.5	3.0	2.0	2.5			
11	17.5	16.5	17.0	8.0	7.5	7.5	3.0	2.0	2.5			
12	17.0	16.5	16.5	---	---	---	3.0	2.0	3.0			
13	17.0	16.0	16.5	---	---	---	3.5	1.5	2.5			
14	17.0	16.0	16.5	---	---	---	2.0	1.5	2.0			
15	16.5	15.5	16.0	---	---	---	2.5	1.5	2.0			
16	16.0	15.0	15.5	6.5	6.0	6.5	2.5	1.5	2.0			
17	15.5	14.5	15.0	6.5	6.0	6.0	2.5	1.5	2.0			
18	15.0	14.0	14.5	6.5	6.0	6.5	3.0	1.5	2.0			
19	14.5	13.5	14.0	7.0	6.0	6.5	3.0	2.0	2.5			
20	14.5	14.0	14.0	6.5	6.0	6.5	3.0	2.0	2.5			
21	14.0	13.5	14.0	6.5	6.0	6.0	3.0	2.0	2.5			
22	13.5	12.0	13.0	6.5	5.5	6.0	---	---	---			
23	13.0	11.5	12.5	6.0	5.0	5.5	---	---	---			
24	12.5	12.0	12.0	5.5	4.5	5.0	---	---	---			
25	12.5	12.0	12.5	5.5	5.0	5.0	---	---	---			
26	12.5	11.5	12.0	5.5	5.0	5.0	---	---	---			
27	11.5	10.5	11.0	6.0	5.0	5.5	---	---	---			
28	11.0	10.0	10.5	6.0	5.5	5.5	---	---	---			
29	10.5	10.0	10.5	6.0	5.0	5.5	---	---	---			
30	10.5	10.0	10.5	5.5	4.5	5.0	---	---	---			
31	11.0	10.0	10.5	---	---	---	---	---	---			
MONTH	19.0	10.0	15.0	10.5	4.5	7.0	5.0	1.5	3.0			

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	5.0	3.5	4.0	10.5	9.0	9.5	16.5	15.5	16.0
2	---	---	---	5.0	3.5	4.0	9.5	9.0	9.5	17.5	16.0	16.5
3	---	---	---	5.0	4.0	4.5	11.0	9.5	10.0	18.0	16.5	17.0
4	---	---	---	5.0	4.0	4.5	10.0	9.5	9.5	17.5	16.5	17.0
5	---	---	---	6.0	4.5	5.0	10.0	9.0	9.5	17.5	16.5	17.0
6	---	---	---	6.0	5.5	5.5	10.0	9.0	9.5	18.5	17.0	17.5
7	---	---	---	6.5	5.5	6.0	10.0	9.0	9.5	18.5	17.5	18.0
8	---	---	---	6.5	5.5	6.0	10.0	9.5	10.0	18.5	17.0	17.5
9	---	---	---	7.0	5.5	6.5	10.0	9.0	9.5	17.5	15.0	16.5
10	---	---	---	7.5	6.0	7.0	10.5	9.0	9.5	16.0	15.0	15.5
11	---	---	---	8.0	6.5	7.0	10.5	9.5	10.0	16.0	14.5	15.5
12	---	---	---	8.0	7.0	7.5	12.0	9.5	10.5	16.5	15.0	15.5
13	---	---	---	8.5	7.5	8.0	13.0	10.5	11.5	17.5	15.5	16.5
14	---	---	---	9.0	8.0	8.5	13.0	11.5	12.0	17.5	16.0	16.5
15	---	---	---	9.5	8.0	9.0	13.0	11.5	12.5	18.0	16.0	17.0
16	---	---	---	10.0	8.5	9.0	13.5	12.0	12.5	18.0	16.5	17.0
17	---	---	---	9.5	8.5	9.0	14.0	12.5	13.0	19.0	17.0	18.0
18	---	---	---	9.5	9.0	9.0	14.5	12.5	13.5	20.0	18.0	18.5
19	---	---	---	9.5	8.5	9.0	14.5	13.0	14.0	19.5	18.5	19.0
20	---	---	---	9.0	8.5	8.5	14.5	13.5	14.0	20.5	18.5	19.5
21	---	---	---	9.5	8.5	8.5	15.0	14.0	14.5	20.5	19.0	20.0
22	---	---	---	8.5	8.5	8.5	16.0	14.5	15.0	21.0	20.0	20.5
23	1.5	1.0	1.5	9.0	7.5	8.0	17.0	15.0	16.0	22.0	20.5	21.0
24	2.0	1.0	1.5	8.0	6.5	7.5	16.5	15.5	16.0	22.0	21.0	21.5
25	3.5	1.5	2.5	7.0	6.5	6.5	16.5	15.5	16.0	22.5	21.5	21.5
26	3.5	2.5	3.0	7.0	6.0	6.5	16.5	15.5	16.0	23.0	21.5	22.0
27	4.5	3.0	3.5	8.0	6.5	7.0	16.0	15.5	16.0	23.5	21.5	22.5
28	4.5	3.5	4.0	7.5	6.5	7.0	16.5	15.0	15.5	24.0	22.0	23.0
29	---	---	---	9.5	7.0	8.0	16.5	15.0	15.5	23.5	22.0	23.0
30	---	---	---	10.0	8.0	9.0	17.0	15.0	15.5	22.5	22.0	22.0
31	---	---	---	10.0	9.0	9.5	---	---	---	22.0	21.5	22.0
MONTH	4.5	1.0	2.5	10.0	3.5	7.0	17.0	9.0	12.5	24.0	14.5	18.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	22.0	21.5	21.5	25.5	24.5	25.0	---	---	---	28.0	27.0	27.5
2	23.0	21.5	22.0	26.0	25.0	25.5	---	---	---	28.0	27.0	27.5
3	22.5	21.5	22.0	26.5	24.5	25.5	---	---	---	28.5	27.5	28.0
4	22.5	21.5	22.0	26.0	25.0	25.5	28.0	27.0	27.5	28.0	27.0	27.5
5	22.0	21.5	22.0	26.5	25.5	26.0	28.5	27.5	28.0	28.0	27.5	27.5
6	22.0	21.0	21.5	26.5	26.0	26.0	29.0	27.5	28.0	28.0	27.5	27.5
7	21.0	20.5	21.0	26.5	25.5	26.0	29.0	28.0	28.5	28.0	26.5	27.5
8	20.5	20.0	20.5	27.5	26.0	26.5	29.5	28.5	28.5	27.0	26.5	27.0
9	20.5	19.5	20.0	27.5	26.5	27.0	29.5	28.5	29.0	26.5	26.0	26.0
10	19.5	19.0	19.5	27.5	26.0	27.0	29.5	28.5	29.0	26.5	25.5	26.0
11	20.0	19.0	19.0	26.5	26.0	26.0	29.5	28.5	29.0	26.0	25.0	25.5
12	20.5	19.0	19.5	27.0	26.0	26.5	29.0	28.5	29.0	26.0	24.5	25.0
13	22.0	19.5	20.5	28.0	26.0	27.0	29.0	28.5	28.5	25.0	24.0	24.5
14	21.5	20.0	20.5	28.0	26.5	27.5	28.5	28.5	28.5	24.5	24.0	24.5
15	21.5	20.5	21.0	29.0	27.0	27.5	29.0	28.0	28.5	24.0	23.0	23.5
16	22.5	20.5	21.5	29.0	27.0	28.0	28.5	28.0	28.5	23.5	23.0	23.5
17	22.5	21.0	21.5	29.0	26.5	28.0	28.5	28.0	28.5	24.0	23.5	23.5
18	23.0	21.5	22.5	29.0	25.5	27.0	28.0	27.5	27.5	24.5	23.5	24.0
19	23.5	22.0	23.0	29.0	26.5	28.0	27.5	26.5	27.5	25.0	23.5	24.0
20	23.5	22.5	23.0	29.0	28.0	27.5	27.5	27.0	27.0	25.0	24.0	24.5
21	23.5	22.5	23.5	31.5	28.0	29.5	27.0	26.0	26.5	24.5	23.5	24.0
22	23.5	22.5	23.0	30.5	29.5	30.0	27.0	26.0	26.5	24.0	23.0	23.5
23	24.0	22.5	23.0	---	---	---	27.0	26.0	26.5	23.5	23.0	23.5
24	24.0	22.5	23.0	---	---	---	27.0	26.0	26.5	23.5	23.0	23.5
25	23.5	23.0	23.5	---	---	---	26.5	25.5	26.0	23.0	22.5	23.0
26	25.0	23.0	24.0	---	---	---	26.5	25.5	26.0	23.0	22.5	22.5
27	25.5	23.5	24.0	---	---	---	26.5	25.5	26.0	23.0	22.5	23.0
28	25.0	24.0	24.5	---	---	---	27.0	25.5	26.0	23.0	22.5	22.5
29	25.5	24.0	25.0	---	---	---	27.5	26.0	26.5	22.5	22.0	22.5
30	25.5	24.5	25.0	---	---	---	28.0	26.5	27.0	22.5	22.0	22.0
31	---	---	---	---	---	---	27.5	26.5	27.0	---	---	---
MONTH	25.5	19.0	22.0	31.5	24.5	27.0	29.5	25.5	27.5	28.5	22.0	25.0

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE--Continued

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.6	6.6	7.2	9.0	7.9	8.4	11.2	10.5	10.8			
2	7.3	6.5	6.8	10.6	8.2	9.3	11.7	10.6	11.1			
3	6.7	6.2	6.5	10.6	9.7	10.1	14.6	11.3	12.0			
4	6.4	6.0	6.2	10.5	9.9	10.1	11.7	11.3	11.5			
5	6.2	5.7	5.9	10.4	9.8	10.1	14.1	11.3	11.6			
6	6.0	5.3	5.6	10.4	9.8	10.2	11.8	11.3	11.5			
7	5.7	5.1	5.4	14.9	10.0	10.7	12.2	11.7	11.9			
8	5.7	4.9	5.3	14.5	10.3	11.0	12.4	10.0	12.1			
9	5.5	4.8	5.2	11.4	10.7	11.0	12.6	11.9	12.2			
10	5.6	5.1	5.3	11.2	10.8	11.1	12.8	12.1	12.5			
11	5.7	5.1	5.4	11.2	11.0	---	15.0	12.3	13.1			
12	5.9	5.2	5.6	---	---	---	13.6	12.7	13.1			
13	6.2	5.4	5.8	---	---	---	16.2	13.1	14.1			
14	6.9	5.6	6.1	---	---	---	15.6	13.0	13.7			
15	6.9	5.9	6.5	---	---	---	16.8	13.4	13.9			
16	9.5	6.3	7.1	10.4	9.9	10.2	17.1	13.4	13.8			
17	8.5	7.3	8.1	10.4	9.7	10.1	14.2	13.4	13.8			
18	8.6	7.8	8.3	10.4	9.7	10.1	14.2	13.4	13.7			
19	8.6	8.0	8.3	10.5	9.8	10.1	17.1	13.0	13.7			
20	8.5	7.7	8.1	10.5	9.8	10.1	14.1	13.0	13.5			
21	8.6	7.8	8.2	10.4	9.8	10.1	16.8	13.0	13.7			
22	11.5	7.7	8.7	13.2	9.9	10.7	---	---	---			
23	11.8	7.9	8.7	13.7	10.1	11.1	---	---	---			
24	9.3	7.7	8.1	13.8	10.4	11.0	---	---	---			
25	8.2	7.2	7.7	10.9	10.4	10.7	---	---	---			
26	8.5	7.3	8.0	10.9	10.4	10.7	---	---	---			
27	8.9	7.8	8.4	11.0	10.4	10.6	---	---	---			
28	8.7	7.8	8.4	10.8	10.3	10.6	---	---	---			
29	8.6	7.8	8.1	10.8	10.2	10.5	---	---	---			
30	8.7	7.7	8.1	11.0	10.3	10.7	---	---	---			
31	8.8	7.9	8.3	---	---	---	---	---	---			
MONTH	11.8	4.8	7.1	14.9	7.9	10.4	17.1	10.0	12.7			

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	10.9	9.3	10.2	10.3	9.7	10.0	6.9	6.0	6.4
2	---	---	---	13.3	9.3	10.1	10.0	9.6	9.9	6.8	6.0	6.5
3	---	---	---	11.2	8.6	9.6	9.9	9.4	9.7	8.4	5.9	6.4
4	---	---	---	10.4	8.3	9.5	9.6	9.1	9.4	6.5	5.7	6.1
5	---	---	---	10.1	7.8	9.1	9.5	8.9	9.2	6.5	5.3	5.8
6	---	---	---	9.3	6.9	7.9	11.8	9.0	9.4	6.2	5.1	5.6
7	---	---	---	8.2	6.9	7.3	12.2	9.1	9.6	6.0	4.9	5.4
8	---	---	---	8.0	7.2	7.6	12.6	9.2	9.9	5.8	4.9	5.4
9	---	---	---	8.4	7.6	7.8	11.7	9.6	10.0	9.0	5.3	6.4
10	---	---	---	8.7	7.7	8.0	10.8	9.6	9.8	8.6	6.5	7.7
11	---	---	---	8.6	7.8	8.1	9.8	9.6	9.6	8.7	7.9	8.3
12	---	---	---	8.6	7.9	8.2	9.6	9.4	9.5	8.5	7.6	8.1
13	---	---	---	8.8	8.2	8.6	9.4	9.1	9.3	8.4	7.5	7.9
14	---	---	---	9.2	8.5	8.8	9.2	9.0	9.1	8.6	7.7	8.1
15	---	---	---	9.1	8.7	8.9	9.1	8.8	9.0	8.6	7.6	8.0
16	---	---	---	9.1	8.4	8.8	8.9	8.6	8.7	8.6	7.5	7.9
17	---	---	---	9.1	8.5	8.8	8.7	8.4	8.5	8.8	7.4	7.9
18	---	---	---	9.3	8.8	9.0	8.7	8.2	8.4	8.3	7.4	7.9
19	---	---	---	12.5	9.2	9.9	8.4	8.0	8.1	8.5	7.5	8.0
20	---	---	---	9.7	9.5	9.6	8.3	7.9	8.1	8.9	7.5	8.2
21	---	---	---	10.1	9.5	9.6	8.1	7.8	7.9	8.5	7.6	8.0
22	---	---	---	10.1	9.6	9.9	8.0	7.6	7.8	8.4	7.5	7.9
23	12.1	11.6	11.9	13.1	9.9	10.8	8.0	7.5	7.8	8.2	7.2	7.8
24	12.3	11.6	11.9	12.7	10.2	10.8	8.0	7.6	7.8	8.0	7.2	7.5
25	12.3	11.2	11.8	12.9	10.4	10.9	8.0	7.6	7.7	7.6	6.7	7.1
26	11.7	10.3	11.2	11.1	10.7	10.9	8.3	6.7	7.5	7.3	6.3	6.9
27	11.5	10.0	10.8	11.2	10.7	10.9	7.0	6.4	6.7	7.0	6.4	6.8
28	10.9	9.6	10.4	11.1	10.4	10.7	7.0	6.2	6.6	7.0	6.2	6.6
29	---	---	---	10.8	10.3	10.5	7.1	6.3	6.7	7.1	6.0	6.7
30	---	---	---	10.5	10.0	10.3	7.0	6.3	6.6	7.3	6.4	6.8
31	---	---	---	11.5	9.9	10.2	---	---	---	6.9	6.2	6.5
MONTH	12.3	9.6	11.3	13.3	6.9	9.4	12.6	6.2	8.6	9.0	4.9	7.1

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE--Continued

DISSOLVED OXYGEN (DO), MG/L, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	6.9	6.2	6.6	6.3	5.7	6.0	7.1	6.3	6.6	6.2	5.4	5.7
2	6.9	6.1	6.5	6.2	5.5	5.8	6.9	5.9	6.3	5.9	5.3	5.6
3	9.3	6.3	6.8	6.2	5.4	5.7	6.6	5.7	6.1	5.7	5.2	5.5
4	8.2	6.4	6.8	6.0	5.4	5.6	6.2	5.0	5.7	6.1	5.4	5.7
5	7.0	6.4	6.7	5.8	5.0	5.4	5.5	4.9	5.2	6.3	5.6	5.8
6	7.0	6.3	6.7	5.8	4.9	5.3	5.4	4.9	5.1	5.9	5.5	5.7
7	7.3	6.6	7.0	5.5	5.0	5.2	5.6	4.8	5.1	6.0	5.4	5.7
8	7.6	7.0	7.3	5.3	4.5	4.9	6.6	5.0	5.6	6.3	5.6	5.9
9	7.7	7.3	7.6	4.6	4.2	4.4	6.6	5.7	6.1	6.4	5.9	6.1
10	8.1	7.4	7.7	4.8	4.4	4.6	6.5	5.6	6.0	6.5	6.1	6.3
11	8.2	7.7	8.0	5.2	4.8	5.0	6.5	5.6	6.0	6.8	6.0	6.4
12	8.4	7.8	8.0	5.5	5.1	5.3	6.3	5.5	5.8	6.9	6.4	6.6
13	8.8	7.7	8.0	5.5	5.0	5.2	6.2	5.4	5.7	7.0	6.5	6.7
14	8.5	7.7	7.9	5.3	4.8	5.1	5.9	5.4	5.6	7.0	6.6	6.8
15	7.9	7.5	7.7	5.2	4.6	4.9	6.2	5.1	5.6	7.1	6.7	6.9
16	8.3	7.2	7.5	4.8	4.3	4.5	6.6	5.4	5.9	7.1	6.7	6.9
17	8.1	7.2	7.6	---	---	---	6.2	5.7	6.0	7.0	6.6	6.8
18	8.1	7.2	7.5	---	---	---	6.3	5.6	5.9	6.6	6.4	6.6
19	7.7	7.1	7.4	---	---	---	6.5	5.6	5.9	6.7	6.3	6.5
20	7.7	7.0	7.1	5.6	5.0	5.2	6.3	5.6	5.8	6.5	6.2	6.3
21	7.4	6.8	7.0	5.7	5.0	5.2	6.8	5.8	6.2	6.5	6.2	6.4
22	7.3	6.8	7.0	6.2	5.1	5.6	6.8	6.2	6.5	6.6	6.2	6.4
23	7.5	6.8	7.1	6.6	5.6	6.1	6.5	5.8	6.2	6.6	6.1	6.3
24	7.4	6.9	7.1	6.5	5.9	6.2	6.2	5.8	5.9	6.5	6.2	6.3
25	7.2	6.8	7.0	6.3	6.0	6.1	6.5	5.8	6.1	6.9	6.4	6.6
26	7.1	6.6	6.8	7.5	5.7	6.1	6.5	5.9	6.1	6.8	6.5	6.7
27	7.0	6.4	6.7	7.8	5.9	6.7	6.8	6.0	6.2	6.6	6.4	6.5
28	6.8	5.8	6.5	8.1	6.7	7.3	6.4	5.9	6.1	6.6	6.2	6.4
29	6.5	6.1	6.3	8.0	6.9	7.4	6.4	5.8	6.0	6.8	6.1	6.4
30	6.5	5.9	6.2	7.5	6.8	7.1	6.2	5.6	5.9	6.8	5.9	6.4
31	---	---	---	7.3	6.3	6.8	6.0	5.4	5.7	---	---	---
MONTH	9.3	5.8	7.1	8.1	4.2	5.7	7.1	4.8	5.9	7.1	5.2	6.3

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at partial-record stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage stations. Discharge measurements made at miscellaneous sites for both low flow and high flow are given in a third table.

Low-flow partial-record stations

Measurements of streamflow in the area covered by this report made at low-flow partial-record stations are given in the following table. These measurements were made during periods of base flow when streamflow is primarily from ground-water storage. These measurements when correlated with the simultaneous discharge of a nearby stream when continuous records are available, will give a picture of the low-flow potentiality of the stream. The column headed "Period of record" shows the water years in which measurements were made at the same, or practically the same, site.

Discharge measurements made at low-flow partial-record stations during water year 1977

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements	
					Date	Discharge (cfs)
		LACKAWAXEN CREEK BASIN				
*01427950	West Branch Lackawaxen Creek near Aldenville, Pa.	Lat 41°40'28", long 75°22'35", Wayne County, at bridge on State Highway 247, 0.3 mile downstream from Hohnsons Creek and 2 miles northwest of Aldenville. Datum of gage is 1,244.60 ft above mean sea level.	40.6	1975-77	4-19-77 4-19-77	97 54
*01429300	Dyberry Creek above reservoir near Honesdale, Pa.	Lat 41°39'26", long 75°17'12", Wayne County, on right bank, 955 ft downstream from bridge on West Branch Dyberry Creek at Tanners Falls, 0.2 mile downstream from confluence of east and west branches of Dyberry Creek, and 6 miles north of Dyberry. Datum of gage is 1,023.43 ft above mean sea level.	45.8	1975-77	4-20-77	47
		TOMS CREEK BASIN				
01439400	Toms Creek at Egypt Mills near Bushkill, Pa.	Lat 41°07'29", long 74°57'14", Pike County, at bridge on U.S. Highway 209 at Egypt, 0.3 mile upstream from mouth and 3 miles northwest of Bushkill.	3.34	1970-77	5-16-77	7.9
		SHAWNEE CREEK BASIN				
01440250	Shawnee Creek at Shawnee on Delaware, Pa.	Lat 41°00'42", long 75°06'40", Monroe County, at bridge on State Highway 945, in village of Shawnee on Delaware, 0.6 mile upstream from mouth and 3 miles east of East Stroudsburg.	4.58	1970-77	5-16-77	3.9
		BRODHEAD CREEK BASIN				
01440500	Paradise Creek at Henryville, Pa.	Lat 41°06'00", long 75°15'05", Monroe County, at bridge on State Highway 191, 200 ft upstream from Cranberry Creek, and 0.5 mile northwest of Henryville.	30.2	1970-77	5-19-77	53
*01440900	McMichaels Creek near Stroudsburg, Pa.	Lat 40°58'04", long 75°13'08", Monroe County, at bridge on Dreher Avenue, 2 miles southwest of Stroudsburg and 3.2 miles upstream from mouth.	63.9	1975-77	5-15-77	84
01441500	Pocono Creek near Stroudsburg, Pa.	Lat 40°59'10", long 75°13'35", Monroe County, at bridge on Bridge Street, 1.3 miles west of Stroudsburg.	41.0	1911-19† 1970-77	5-18-77	47

* Also a crest-stage partial-record station.
† Operated as a continuous-record gaging station.

Discharge measurements made at low-flow partial-record stations during water year 1977--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements	
					Date	Discharge (cfs)
		JACOBY CREEK BASIN				
01443100	Jacoby Creek at Portland, Pa.	Lat 40°55'00", long 75°06'19", Northampton County, at county highway bridge, 0.6 mile southwest of Portland and 0.7 mile upstream from mouth.	6.17	1970-77	5-16-77	8.6
		MARTINS CREEK BASIN				
01446650	Martins Creek below Little Martins Creek at Martins Creek Pa.	Lat 40°47'02", long 75°11'08", Northampton County, at bridge on U.S. Highway 611 in village of Martins Creek and 0.9 mile upstream from mouth.	43.4	1932 1970-77	5-16-77	44
		BUSHKILL CREEK BASIN				
01446900	Bushkill Creek near Easton, Pa.	Lat 40°42'38", long 75°14'46", Northampton County, at bridge just west of Bushkill Drive at Coilton, 0.8 mile downstream from Schoeneck Creek and 2 miles north of Easton.	72.0	1970-77	5-20-77	74
		LEHIGH RIVER BASIN				
01448100	Sandy Run near White Haven, Pa.	Lat 41°00'31", long 75°46'08", Luzerne County, at bridge on L.R. 40118, 800 ft upstream from Pond Creek and 3.8 miles south of White Haven.	10.9	1970-77	4-21-77	18
01449355	Middle Creek at Kresgeville, Pa.	Lat 40°54'03", long 75°29'50", Monroe County, at bridge on U.S. Highway 209, at Kresgeville, 0.5 mile downstream from Dotters Creek and 0.5 mile upstream from mouth.	18.6	1970-77	5-18-77	30
*01450455	Buckwha Creek at Little Gap, Pa.	Lat 40°49'21", long 75°32'04", Carbon County, at bridge on L.R. 13035, 0.35 mile upstream from mouth and 0.75 mile south of Little Gap.	42.5	1975-77	4-19-77	56
01451110	Hockendauqua Creek near Northampton,Pa.	Lat 40°42'50", long 75°29'45", Northampton County, at bridge on county road, 1.7 miles north of Northampton and 3.3 miles upstream from mouth.	38.1	1970-77	4-20-77	45
01451165	Catasauqua Creek at Catasauqua, Pa.	Lat 40°38'52", long 75°28'06", Lehigh County, at bridge on North Dauphin Street, Catasauqua, 0.1 mile upstream from mouth.	15.7	1970-77	4-22-77	15
		COOKS CREEK BASIN				
01457790	Cooks Creek at Durham Furnace, Pa.	Lat 40°34'56", long 75°12'20", Bucks County, on east side of Red Brick Road, 0.1 mile north of State Highway 212, 0.5 mile upstream from mouth and Durham Furnace.	29.4	1934 1944 1949-50 1970-77	11-18-76 4-21-77	12 34
		TINICUM CREEK BASIN				
*01458900	Tinicum Creek near Ottsville, Pa.	Lat 40°28'14", long 75°08'13", Bucks County, at concrete bridge on gravel road, 0.9 mile below confluence of Rapp Creek and Beaver Creek, 1.5 miles east of Ottsville and 5.3 miles above mouth.	14.7	1971-77	4-21-77 5-16-77 8- 3-77	4.0 2.3 2.3
		TOHICKON CREEK BASIN				
01459150	Tohickon Creek near Quakertown, Pa.	Lat 40°26'26", long 76°18'42", Bucks County, 1,000 ft downstream from highway bridge and mouth of Morgan Creek and 1 mile east of Quakertown.	27.5	1970-77	11-18-76 4-21-77	8.4 9.1
		JERICHO CREEK BASIN				
01462300	Jericho Creek at Washington Crossing, Pa.	Lat 40°18'40", long 74°54'23", Bucks County, at bridge on State Highway 32, 0.3 mile upstream from mouth and 2.5 miles northwest of Washington Crossing.	9.52	1971-77	11-18-76 4-21-77 5-16-77	.83 4.0 2.4

* Also a crest-stage partial-record station.

Discharge measurements made at low-flow partial-record stations during water year 1977--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements	
					Date	Discharge (cfs)
		SCHUYLKILL RIVER BASIN				
*01467500	Schuylkill River at Pottsville, Pa.	Lat 40°40'53", long 76°11'25", Schuylkill County, at bridge on State Highway 61 at Pottsville and 1.7 miles downstream from Mill Creek.	53.4	1975-77	4-22-77	96
*01467948	West Branch Schuylkill River near Cressona, Pa.	Lat 40°38'30", long 76°11'43", Schuylkill County, at bridge on Gordon-Nagle Trail, 0.75 mile upstream from Panther Creek and 1 mile north at Cressona.	52.5	1975-77	4-22-77	88
*01470190	Little Schuylkill River at Port Clinton, Pa.	Lat 40°35'24", long76°01'43", Schuylkill County, 0.65 mile upstream from Rattling Run and 0.7 mile north of Port Clinton.	132	1975-77	5- 5-77	263
*01470748	Sacony Creek near Virginville, Pa.	Lat 40°31'27", long 75°51'29", Berks County, at bridge on L.R. 06135, 1 mile upstream from mouth and 1 mile east of Virginville.	54.1	1975-77	6-15-77	19
01470758	Moselem Creek near Shoemakersville, Pa.	Lat 40°30'10", long 75°52'47", Berks County, at bridge on county road, 0.4 mile upstream from mouth, 2.8 miles west of Moselem Springs and 5 miles east of Shoemakersville.	13.5	1970-77	4-22-77	27
*01470825	Northkill Creek below Little Northkill Creek near Bernville, Pa.	Lat 40°25'42", long 76°06'52", Berks County, at bridge on L.R. 06047, at Bernville, 0.25 mile upstream from mouth and 0.55 mile downstream from Little Northkill Creek.	42.0	1975-77	10-18-76	60
*01471800	Pine Creek near Manatawny, Pa.	Lat 40°24'43", long 75°44'02", Berks County, at steel bridge on macadam road, Lobachsville, 0.5 mile upstream from mouth, 0.5 mile below West Branch Pine Creek and 2 miles north of Manatawny.	15.6	1970-77	11-18-76 4-21-77 9-21-77	5.6 18 2.4
*01473470	Stony Creek at Norristown, Pa.	Lat 40°07'38", long 75°20'43", Montgomery County, on right bank at culvert on Sterger Street in Norristown, 0.1 mile downstream from dam, 0.7 mile downstream from unnamed tributary, and 1.1 miles upstream from mouth.	20.4	1975-77	4-22-77 9-22-77	9.9 2.3
		DARBY CREEK BASIN				
*01475555	Hermesprota Creek at Darby, Pa.	Lat 39°54'02", long 75°16'19", Delaware County, on right bank at pipe arch culvert on Linden Ave. in Darby, and 1.7 miles upstream from mouth.	1.01	1975-77	4-20-77	.40
*01475560	Stony Creek at Prospect Park, Pa.	Lat 39°53'14", long 75°19'00", Delaware County, on left bank at concrete arch culvert and dam on 13th Street in Prospect Park.	2.29	1975-77	4-20-77	.68
*01475600	Muckinipattis Creek at Glenolden, Pa.	Lat 39°53'44", long 75°17'20", Delaware County, on left bank at Glenolden Ave. in Glenolden, 1.5 miles upstream from mouth.	3.50	1975-77	4-20-77	.98
		CRUM CREEK BASIN				
*01475850	Crum Creek near Newtown Square, Pa.	Lat 39°58'35", long 75°26'13", Delaware County, at Castle Rock Bridge on State Highway 3, 0.6 mile upstream from Preston Run, 0.8 mile upstream from Geist Reservoir and 2 miles west of Newtown Square.	15.8	1932 1949 1970-77	11-19-76 4-22-77	8.9 20
*01476000	Crum Creek at Woodlyn, Pa.	Lat 39°52'44", long 75°20'58", Delaware County, on right bank at bridge on Bullens Lane.	33.3	1931-37≠ 1975-77	4-20-77	6.9

* Also a crest-stage partial-record station.
≠ Operated as a continuous-record gaging station.

Discharge measurements made at low-flow partial-record stations during water year 1977--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements	
					Date	Discharge (cfs)
		RIDLEY CREEK BASIN				
*01476435	Ridley Creek at Dutton Mill, near West Chester, Pa.	Lat 39°58'52", long 75°31'02", Chester County, on left bank at single span highway bridge on Strasburg Road, 0.1 mile west of Dutton Mill and 4.9 miles east of West Chester.	9.70	1975-77	4-22-77	12
01476500	Ridley Creek at Moylan, Pa.	Lat 39°54'08", long 75°23'32", Delaware County, on upstream left bank of Manchester Road bridge at intersection with Knowltown Road, at Moylan, and 1 mile south of Media.	31.9	1931-37≠ 1975-77	4-22-77	31
		CHESTER CREEK BASIN				
*01476836	East Branch Chester Creek near West Chester, Pa.	Lat 39°56'09", long 75°32'29", Chester County, at two-span highway bridge on Street Road, 0.4 mile upstream from Goose Run, 1.1 miles northwest of Cheyney and 3.8 miles southeast of the intersection of State Route 100 and U.S. Highway 202.	10.8	1975-77	4-22-77	11
*01476950	West Branch Chester Creek near Chester Heights, Pa.	Lat 39°52'36", long 75°27'05", Delaware County, at single span bridge on Birney Road (SR 23017) at Aston Mills, Aston Township, 1.2 miles upstream from confluence with East Branch and 1.8 miles southeast of Chester Heights.	18.0	1975-77	4-22-77	19
		CHRISTINA CREEK BASIN				
01478150	East Branch White Clay Creek at Landenberg, Pa.	Lat 30°46'40", long 75°46'18", Chester County, at county highway bridge at Landenberg, 1.4 miles downstream from Egypt River and 4 miles southeast of West Grove.	25.6	1970-77	11-17-76 4-21-77	19 31
		BRANDYWINE CREEK BASIN				
01479700	West Branch Red Clay Creek near Kennett Square, Pa.	Lat 39°48'39", long 75°42'19", Chester County, at county highway bridge on Kaolin Road, 1 mile upstream from East Branch Red Clay Creek, 1.4 miles east of Kaolin and 2.5 miles south of Kennett Square.	17.0	1970-77	11-17-76 4-21-77	12 16

* Also a crest-stage partial-record station.
≠ Operated as a continuous-record gaging station.

Crest-stage partial-record stations

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Annual maximum discharge at crest-stage partial-record stations

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Annual maximum Gage height (feet)	Annual maximum Discharge (ft^3/s)
		CALKINS CREEK BASIN					
01427650	N.B. Calkins Creek near Damascus, Pa.	Lat 41°42'00", long 75°10'00', at concrete bridge on State Highway 371 at West Damascus, 4.0 miles west of Damascus, 4.8 miles above Sunny Brook, and 8.0 miles above mouth.	7.02	1962-64 1965-73≠ 1974-77	10- 9-76	8.06	746
		LACKAWAXEN RIVER BASIN					
*01427950	W.B. Lackawaxen River near Aldenville, Pa.	Lat 41°40'28", long 75°22'35", Wayne County, at bridge on State Highway 247, 0.3 mile downstream from Johnsons Creek and 2.0 miles northwest of Aldenville. Datum of gage is 1,244.60 ft above mean sea level.	40.6	1975-77	10- 9-76	6.85	2,980
*01429300	Dyberry Creek above Reservoir near Honesdale, Pa.	Lat 41°39'26", long 75°17'12", Wayne County, on right bank, 955 ft downstream from bridge on West Branch Dyberry Creek at Tanners Falls, 0.2 mile downstream from confluence of the east and west branches of Dyberry Creek, and 6 miles north of Dyberry. Datum of gage is 1,023.43 ft above mean sea level.	45.8	1975-77	10- 9-76	9.33	1,480
01430000	Lackawaxen River near Honesdale, Pa.	Lat 41°33'43", long 75°14'54", at Lemnitzer Bridge in Honesdale, Wayne County, on U.S. Highway 6, and 1.2 miles downstream from Dyberry Creek.	164	1949-69≠ 1974-77	10- 9-76	--	b 5,900
01431000	Middle Creek near Hawley, Pa.	Lat 41°29'05", long 75°13'20", Wayne County, at bridge on L.R. 63022, 0.1 mile below Red Shale Brook, 2 miles northwest of Hawley, and 2.5 miles above mouth.	78.4	1945-60≠ 1961-77	4- 3-77	5.40	1,670
01431680	Mill Brook near Paupack, Pa.	Lat 41°23'15", long 75°14'20", Pike County, at culvert on State Highway 507, 400 ft above mouth, 1.8 miles south of Paupack. Datum of gage is 1,183.84 ft above mean sea level.	4.84	1960-77	3- 4-77	5.90	270
		VANDERMARK CREEK BASIN					
01438300	Vandermark Creek at Milford, Pa.	Lat 41°19'35", long 74°47'50", Pike County, at stone bridge on Broad Street in Milford, and 0.4 mile above mouth. Datum of gage is 490.50 ft above mean sea level.	5.36	1962-77	9-25-77	3.08	180
		BRODHEAD CREEK BASIN					
01440300	Mill Creek at Mountainhome, Pa.	Lat 41°09'50", long 75°16'00", Monroe County, at stone-arch bridge on macadam road 0.5 mile east of Mountainhome, and 1.5 miles above mouth.	5.84	1961-77	3- 4-77	7.25	290

≠ Operated as a continuous-record station.
* Also low-flow partial-record station.
b Estimated.

Annual maximum discharge at crest-stage partial-record stations--continued

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft³/s)
		BRODHEAD CREEK - Continued					
*01440900	McMichael Creek near Stroudsburg, Pa.	Lat 40°58'04", long 75°13'08", Monroe County, at bridge on Dreher Ave. two miles southwest of Stroudsburg, 3.2 miles upstream from mouth of Brodhead Creek.	63.9	1975-77	3-22-77	6.29	2,190
		LEHIGH RIVER BASIN					
*01450455	Buckwha Creek at Little Gap, Pa.	Lat 40°49'21", long 75°32'04", Carbon County, at bridge on L.R. 13035, 0.35 mile upstream from mouth and 0.75 mile south of Little Gap.	42.5	1975-77	3-22-77	7.91	2,350
01452300	East Branch Monocacy Creek near Bath, Pa.	Lat 40°43'10", long 75°22'10", Northampton County, on left bank 25 ft downstream from bridge on L.R. 40863, 1.5 miles southeast of Bath, and 2.5 miles upstream from mouth. Datum of gage is 372.06 ft above mean sea level.	5.35	1962-68≠ 1969-77	2-25-77	5.99	595
01454600	Polk Valley Run at Hellertown, Pa.	Lat 40°34'05", long 75°19'45", Northampton County, at concrete bridge on L.R. 48093, 0.7 mile above mouth, and 1.5 miles southeast of Hellertown.	2.14	1963-77	2- 8-65	3.2	a 55
					2-13-66	3.47	a 87
					3-10-67	3.22	a 57
					5-31-68	3.25	a 60
					7-28-69	4.05	a 202
					4- 2-70	3.66	a 116
					8-28-71	4.24	a 257
					6-22-72	4.55	a 365
					11-14-72	4.05	a 202
					12-21-73	3.48	a 88
					7-14-75	4.73	a 445
					11-13-75	3.54	a 97
					3-22-77	3.31	67
		TINICUM CREEK BASIN					
*01458900	Tinicum Creek near Ottsville, Pa.	Lat 40°28'14", long 75°08'13", Bucks County, at concrete bridge on gravel road, 0.9 mile below confluence of Rapp Creek, 1.5 miles east of Ottsville, and 5.3 miles above mouth.	14.7	1962-77	3-22-77	4.77	1,160
		POQUESSING CREEK BASIN					
01465780	Poquessing Creek above Byberry Creek at Philadelphia, Pa.	Lat 40°14'10", long 74°58'33", Philadelphia County, on left bank 2,200 ft upstream from Byberry Creek, Philadelphia. Datum of gage is 17.26 ft above mean sea level.	13.2	1965-70≠ 1971-77	9-24-77	7.54	1,680
01465795	Byberry Creek at Grant Avenue Philadelphia, Pa.	Lat 40°03'45", long 74°59'47", Philadelphia County, on left bank 120 ft upstream from Grant Avenue Bridge, 1,300 ft west of Frankford Avenue, Philadelphia. Datum of gage is 26.17 ft above mean sea level.	7.13	1964-70≠ 1971-77	9-24-77	.57	/
		PENNYPACK CREEK BASIN					
01467045	Pennypack Creek below Verree Road, Philadelphia, Pa.	Lat 40°05'04", long 75°03'34", Philadelphia County, on left bank 600 ft downstream from Verree Road and 1 mile downstream from Rockledge Branch, Philadelphia. Datum of gage is 67.26 ft above mean sea level.	42.8	1964-70≠ 1971-77	3-22-77	9.98	2,430

/ Not determined.
≠ Operated as a continuous-record station.
* Also low-flow partial-record station.
a Revised.

Annual maximum discharge at crest-stage partial-record stations--continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft^3/s)
		SCHUYLKILL RIVER BASIN					
*01467500	Schuylkill River at Pottsville, Pa.	Lat 40°40'53", long 76°11'25", Schuylkill County, at bridge on State Highway 61 at Pottsville, and 1.7 miles downstream from Mill Creek.	53.4	1975-77	10- 9-76	7.27	1,840
*01467948	West Branch Schuylkill River near Cressona, Pa.	Lat 40°38'30", long 76°11'43", Schuylkill County, at bridge on Gordon-Nagle Trail, 0.75 mile upstream from Panther Creek, and 1.0 mile north of Cressona.	52.5	1975-77	10- 9-76	6.13	2,210
*01470190	Little Schuylkill River at Port Clinton, Pa.	Lat 40°35'24", long 76°01'43", Schuylkill County, 0.65 mile upstream from Rattling Run and 0.7 mile north of Port Clinton.	132	1975-77	1-26-76 3- 4-77	a9.29 8.72	13,000 10,200
*01470748	Sacony Creek near Virginville, Pa.	Lat 40°31'27", long 75°51'29", Berks County, at bridge on L.R. 06135, 1.0 mile upstream from mouth, and 1.0 mile east of Virginville.	54.1	1975-77	2-24-77	7.66	1,660
*01470810	Northkill Creek at Bernville, Pa.	Lat 40°26'22", long 76°07'12", Berks County, at bridge on State Highway 183, 0.3 mile upstream from Little Northkill Creek and 0.7 mile northwest of Bernville.	8.8	1975-77	3-22-77	6.00	980
*01470818	Little Northkill Creek near Bernville, Pa.	Lat 40°26'33", long 76°07'23", Berks County, at bridge on L.R. 06013, 1.5 miles west of Bernville and 1.6 miles upstream from mouth.	21.2	1975-77	10- 9-76	6.39	2,610
*01470825	Northkill Creek below Little Northkill Creek near Bernville, Pa.	Lat 40°25'42", long 76°06'52", Berks County, at bridge on L.R. 06047, 0.25 mile upstream from mouth, and 0.55 mile downstream from Little Northkill Creek.	42.0	1975-77	3-22-77	c7.98	2,300
*01471800	Pine Creek near Manatawny, Pa.	Lat 40°24'43", long 75°44'02", Berks County, at steel bridge on macadam road, 0.5 mile above mouth, 0.5 mile below West Branch Pine Creek, and 2 miles north of Manatawny.	15.6	1961-77	7-12-77	5.52	383
01472162	Schuylkill River at Phoenixville, Pa.	Lat 40°08'11", long 75°30'41", Chester County, on the downstream end of the left bank wingwall of Reading Railroad bridge across the mouth of French Creek at Phoenixville.	1,280	1971-77	2-14-71 6-23-72 6-29-73 12-21-73 9-25-75 1-27-76 2-25-77 3-23-77	88.02 100.58 88.03 85.93 84.12 89.12 84.65 83.54	a33,000 a79,100 a33,100 a28,800 a23,900 a35,200 d 22,000
01473100	Zacharias Creek near Skippack, Pa.	Lat 40°12'26", long 75°21'57" Montgomery County, at concrete weir 1.2 miles above mouth, and 2.2 miles southeast of Skippack.	7.27	1960-77	6- 9-77	8.65	2,880

* Also low-flow partial-record station.
a Revised.
c Flood mark.
d Backwater from ice.

Annual maximum discharge at crest-stage partial-record stations--continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft^3/s)
01473193	Schuylkill River at Port Kennedy, Pa.	Lat 40°06'29", long 75°25'16", Montgomery County, on left bank 200 ft upstream from Betzwood Bridge, and 4.0 mile downstream from Perkiomen Creek at Port Kennedy.	1,691	1977	3-23-77	69.54	36,400
*01473470	Stony Creek at Norristown, Pa.	Lat 40°07'38", long 75°20'43", Montgomery County, on right bank at culvert on Sterger Street in Norristown, 0.1 mile downstream from dam, 0.7 mile downstream from unnamed tributary, and 1.1 miles upstream from mouth.	20.4	1975-77	3-22-77	5.84	≠
01473880	Pine Run tributary at Fort Washington, Pa.	Lat 40°08'13", long 75°11'21", Montgomery County, at corrugated half-round culvert on Delaware Road in Fort Washington Industrial Park at Fort Washington, and 300 ft above mouth.	2.01	1962-77	3-12-62	4.13	a 116
					11-10-62	3.97	a 83
					1- 9-64	5.35	a 170
					1-14-68	6.77	a 257
					7-28-69	7.87	a 332
					4- 2-70	5.98	a 193
					8-28-71	8.02	a 342
					6-22-72	6.40	a 227
					6-19-73	-	a 630
					12-21-73	7.40	a 303
					7-13-75	9.45	a 460
					1-27-76	4.64	a 126
					3-22-77	7.00	278
01473900	Wissahickon Creek at Fort Washington, Pa.	Lat 40°07'26", long 75°13'13", Montgomery County, on concrete bridge on State Highway 73, 0.5 mile downstream from Sandy Run, and 1 mile south of Fort Washington.	40.8	1961-68ø 1969-77	3-22-77	11.33	3,080
01473980	Wissahickon Creek at Livezey Lane Philadelphia, Pa.	Lat 40°02'59", long 75°12'52", Philadelphia County, on left bank 300 ft upstream from Green Valley Boat Club, 500 ft downstream from Creshiem Creek in Philadelphia. Datum of gage is 78.55 ft above mean sea level.	59.2	1965-70ø 1971-77	3-22-77	4.93	3,140
		DARBY CREEK BASIN					
*01475555	Hermesprota Creek at Darby, Pa.	Lat 39°54'02", long 75°16'19", Delaware County, on right bank at culvert on Linden Avenue in Darby, 1.7 miles upstream from mouth.	1.01	1975-77	9-19-77	6.42	≠
*01475560	Stony Creek at Prospect Park, Pa.	Lat 39°53'14", long 75°19'00", Delaware County, on left bank at culvert and dam on 13th Street in Prospect Park.	2.29	1975-77	9-19-77	12.87	≠
*01475600	Muckinipattis Creek at Glenolden, Pa.	Lat 39°53'44", long 75°17'20", Delaware County, on left bank at Glenolden Avenue in Glenolden, 1.5 miles upstream from mouth.	3.50	1975-77	9-19-77	6.75	≠
		CRUM CREEK BASIN					
*01475850	Crum Creek near Newtown Square, Pa.	Lat 39°58'35", long 75°26'13", Delaware County, at Castle Rock Bridge on State Highway 3, 0.6 mile upstream from Preston Run, 0.8 mile upstream from Geist Reservoir, and 2 miles west of Newtown Square.	15.8	1977	3-22-77	3.92	≠
*01476000	Crum Creek at Woodlyn, Pa.	Lat 39°52'44", long 75°20'58", Delaware County, on right bank at bridge on Bullens Lane in Woodlyn.	33.3	1931-37ø 1975-77	9-24-75	6.62	e 1,440
					7-11-76	5.92	e 982
					3-22-77	5.33	692

≠ Not determined.
ø Operated as a continuous-record station.
* Also low-flow partial-record station.
a Revised.
e Not previously published.

Annual maximum discharge at crest-stage partial-record stations--continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft^3/s)
		RIDLEY CREEK BASIN					
*01476435	Ridley Creek at Dutton Mill near West Chester, Pa.	Lat 39°58'52", long 75°31'02", Chester County, on left bank at Strasburg Road, 0.1 mile west of Dutton Mill and 4.9 miles east of West Chester.	9.70	1975-77	7-13-75	5.89	e800
					1-27-76	4.05	e534
					3-22-77	4.50	611
		CHESTER CREEK BASIN					
*01476836	East Branch Chester Creek near West Chester, Pa.	Lat 39°56'09", long 75°32'29", Chester County, at bridge on Street Road, 0.4 mile upstream from Goose Run, 1.1 miles northwest of Cheyney, and 3.8 miles east of the intersection of Pa. Route 100 and U.S. Highway 202 in West Chester.	10.8	1975-77	7-21-75	7.11	e851
					1-27-76	6.40	e670
					3-22-77	6.00	580
01476853	East Branch Chester Creek at Cheyney, Pa.	Lat 39°55'58", long 75°31'03", Delaware County, at bridge on Station Road, 0.5 mile northeast of Cheyney and 1.5 miles downstream from Goose Run.	22.8	1975-77	7-21-75	10.66	e1,390
					1-27-76	7.98	e 656
					6-28-77	8.45	768
*01476950	West Branch Chester Creek near Chester Heights, Pa.	Lat 39°52'36", long 75°27'05", Delaware County, at bridge on Birney Road at Aston Mills, 1.2 miles upstream from confluence with East Branch, and 1.8 miles southeast of Chester Heights.	18.0	1975-77	7-21-75	6.63	e1,900
					7-11-76	4.59	e 732
					3-22-77	5.07	955
		CHRISTINA CREEK BASIN					
01478200	Middle Branch White Clay Creek near Landenberg, Pa.	Lat 39°46'54", long 75°48'03", Chester County, at bridge on L.R. 15017, 1.4 miles above mouth, and 1.7 miles west of Landenberg.	12.7	1960-77	3-22-77	7.43	884
		BRANDYWINE CREEK BASIN					
01480610	Sucker Run near Coatesville, Pa.	Lat 39°58'20", long 75°51'03", Chester County, at concrete bridge on South Park Avenue at State Highway 372, 1.6 miles above mouth, and 2 miles west of Coatesville.	2.57	1964-77	9- 1-77	4.09	/

/ Not determined.
* Also a low-flow partial-record station.
e Not previously published.

Discharge measurements made at miscellaneous sites during water year 1977

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		SHOHOLA CREEK BASIN				
Shohola Creek	Delaware River	Lat 41°23'25", long 74°58'15", 200 ft above Shohola Falls, 0.8 mile below Rattlesnake Creek, 2 miles upstream from Balliard Creek, and 2.3 miles southeast of Greeley.	55.1	1957-60	6- 3-77 7-27-77 9-16-77	8.0 8.3 8.4
Shohola Creek	Delaware River	Lat 41°27'20", long 74°55'25", Pike County, 1.4 miles above mouth and 1.4 miles south of Shohola.	83.6	1920-28≠ 1957 1959-67 1969-76	5-31-77 6- 3-77 7-27-77 8-22-77 9-16-77	*53 *18 *12 *27 12
		LEHIGH RIVER BASIN				
Lehigh River	Delaware River	Lat 40°52'03", long 75°44'10", Carbon County, at highway bridge on State Highway 903, at Jim Thorpe.	-	-	9- 7-77	*212
Lehigh River	Delaware River	Lat 40°40'33", long 75°29'24", Lehigh County, at Chestnut Street bridge, at Coplay.	-	-	9- 7-77	*386
Lehigh River	Delaware River	Lat 40°36'23", long 75°27'17", Lehigh County, on upstream side of Hamilton Street bridge, at Allentown, 200 ft downstream from lock and dam, and 0.7 mile upstream from Little Lehigh Creek.	1,033	-	11-17-76 3-25-77 9-15-77	1,500 7,450 655
Cedar Creek	Little Lehigh Creek	Lat 40°35'38", long 75°29'58", Lehigh County, at Walnut Avenue at Allentown, 1.0 mile upstream from mouth.	-	-	9-15-77	17
Little Lehigh Creek	Lehigh River	Lat 40°35'49", long 75°26'59", Lehigh County, at Allentown, 150 ft upstream from mouth.	-	-	9-15-77	65
Monocacy Creek	Lehigh River	Lat 40°36'58", long 75°22'45", Northampton County, at Bethlehem, 0.4 mile upstream from mouth.	-	-	9-15-77	24
		SCHUYLKILL RIVER BASIN				
Tulpehocken Creek Tributary	Tulpehocken Creek	Lat 40°25'36", long 76°10'01", Berks County, 0.65 mile upstream from mouth and 2.3 mile northwest of Host.	-	1970-76	10-19-76 4-14-77 5- 3-77 6-14-77 7-21-77 9-21-77	1.6 1.7 .73 .26 .30 .18
Tulpehocken Creek	Schuylkill River	Lat 40°25'32", long 76°06'51", Berks County, at bridge on LR 06047, 600 ft upstream from Northkill Creek and 0.5 mile south of Bernville.	84.8	1972-76	3-23-77	606
Valley Creek	Schuylkill River	Lat 40°04'53", long 75°27'25", Chester County, at bridge on Wilson Road, 1 mile south of Valley Forge, 1.3 miles upstream from mouth, and 5 miles west of Norristown.	22.0	1972-73 1975	4- 5-77 4- 5-77	270 203
		ELK RIVER BASIN				
Big Elk Creek	Elk River	Lat 39°44'08", long 75°52'53", Chester County, at Fergusons Bridge (No. 35) on State Highway 841, 0.9 mile north of Lewisville.	31.2	1976	10- 9-76 10- 9-76	592 828
Little Elk Creek	Elk River	Lat 39°43'13", long 75°53'50", Cecil County, Maryland at single span highway bridge on Lewisville, Pa. Blake, Md. road, 1.2 miles west of Lewisville, Pa. and 2.2 miles northwest of Providence, Md.	13.4	1976	10- 9-76 10- 9-76	425 432

* Base flow.

≠ Operated as a continuous-record gaging station.

Saucon Creek Seepage Investigation

Discharge measurements were made during the 1977 water year, on October 7, 1976, on the Saucon Creek and tributaries, to study channel gains and losses. The measurements were made during a period of constant base flow of the stream.

Saucon Creek Mile	Stream	Location	Mean Discharge (ft ^{3}/s)	Gain or Loss (ft ^{3}/s)
11.1	Saucon Creek	200 ft upstream from bridge on U.S. Highway 309 and 0.5 mi southeast of Lanark.	-	2.16
10.3	Unnamed tributary	400 ft downstream from bridge on East Saucon Valley Road, 0.8 mi east of Lanark.	0.00	-
9.6	Saucon Creek	100 ft downstream from highway bridge on Camp Meeting Road, 0.8 mi southwest of Friedensville.	1.85	- .31
9.4	Mine discharge		63.0	-
9.3	Saucon Creek	1,600 ft downstream from highway bridge on Camp Meeting Road and 0.6 mi southwest of Friedensville	64.9	-
	South Branch Saucon Creek	above mill race, 0.2 mi north of Coopersburg and 0.5 mi south of Center Valley.	4.91	-
8.3	South Branch Saucon Creek	275 ft upstream from bridge on Spring Valley Road, 2,000 ft upstream from mouth, and 0.8 mi southeast of Friedensville.	5.98	-
8.0	Saucon Creek	on private road of Saucon Valley Country Club, 0.3 mi downstream from South Branch Saucon Creek and 0.5 mi southeast of Friedensville.	65.8	-5.1
6.5	Spring Valley Run	200 ft downstream from culvert under tracks of Reading Railroad, 0.2 mi north of Spring Valley.	.90	-
6.2	Bingen Run	250 ft upstream from mouth at Bingen.	.10	-
5.2	Flint Hill Run	0.7 mi northwest of Leithsville.	.10	-
5.1	Saucon Creek	0.7 mi northwest of Leithsville.	67.9	+1.0
5.0	Orchard Run	0.6 mi northwest of Leithsville.	.09	-
4.5	Polk Valley Run	300 ft upstream from bridge on state highway 412, 800 ft upstream from mouth, at Hellertown.	.15	-
3.7	Saucon Creek	200 ft upstream from highway bridge on Friedensville Road, at Hellertown.	61.6	-6.5
3.6	Silver Creek	at mouth, at Hellertown.	.17	-
3.3	Black River	300 ft upstream from highway bridge on Creek Road, 0.2 mi west of Hellertown.	.00	-
2.6	Saucon Creek	600 ft downstream from highway bridge on High Street, 0.2 mi west of Hellertown.	57.9	-3.9
2.4	Unnamed tributary	at mouth just south of Silvex Road.	.10	-
1.5	Saucon Creek	at bridge on Fire Lane Road	65.1	+7.1
	Overall net gain or loss			-7.7

Water-quality partial-record stations are particular sites where chemical-quality, biological and or sediment data are collected systematically over a period of years for use in hydrologic analyses. The data are collected usually less than quarterly.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COLLECTING SAMPLE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)
Lackawaxen River Basin									
01430200 - LACKAWAXEN RIVER AT WHITE MILLS, PA (LAT 41 31 30 LONG 075 11 20)									
NOV , 1976									
15...	1515	9813	70	7.7	9.0	11.0	30	--	--
FEB , 1977									
24...	1515	9813	240	7.7	--	--	25	0	0
AUG									
30...	0945	9813	160	7.5	25.0	9.3	40	--	0
01431600 - WALLENPAUPACK CREEK AT EAST STERLING, PA. (LAT 41 20 10 LONG 075 20 25)									
NOV , 1976									
22...	1515	9813	110	6.8	8.0	11.0	40	--	0
MAR , 1977									
01...	1515	9813	140	7.1	2.0	12.0	30	0	0
AUG									
30...	1420	9813	120	8.0	24.0	11.0	35	--	0
01432119 - LACKAWAXEN RIVER AT MOUTH AT LACKAWAXEN PA (LAT 41 29 12 LONG 074 59 31)									
NOV , 1976									
15...	1515	9813	70	7.5	9.0	11.0	30	--	0
MAR , 1977									
01...	1515	9813	150	7.2	2.0	12.0	30	0	0
AUG									
30...	1320	9813	90	8.1	21.0	10.7	15	--	0
Brodhead Creek Basin									
01440650 - BRODHEAD CREEK NEAR ANALOMINK, PA (LAT 41 02 07 LONG 075 12 45)									
NOV , 1976									
09...	1515	9813	70	6.8	9.0	11.0	20	--	0
FEB , 1977									
24...	1150	9813	70	6.2	1.0	--	20	0	0
AUG									
22...	1440	9813	60	8.7	23.0	11.7	10	--	0
Martins Creek Basin									
01446655 - MARTINS CREEK AT MARTINS CREEK, PA. (LAT 40 46 42 LONG 075 10 36)									
NOV , 1976									
22...	1040	9813	300	7.6	5.0	11.7	128	--	0
FEB , 1977									
15...	1025	9813	280	--	3.0	12.8	102	0	0
MAY									
10...	1010	9813	270	6.6	8.5	12.3	96	--	0
AUG									
11...	1045	9813	550	7.6	20.0	8.5	238	--	0
Lehigh River Basin									
01448850 - BLACK CREEK AT WEATHERLY, PA. (LAT 40 55 52 LONG 075 49 20)									
NOV , 1976									
16...	1240	9813	140	6.1	4.0	12.0	70	0	18
FEB , 1977									
22...	1230	9813	130	5.5	.5	--	40	0	12
MAY									
18...	1240	9813	120	4.8	--	--	30	--	12
AUG									
17...	1100	9813	215	--	--	--	80	--	38

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	TOTAL FLUORIDE (F) (MG/L)	TOTAL FILTRABLE RESIDUE (MG/L)	TOTAL NONFILTRABLE RESIDUE (MG/L)	TOTAL RESIDUE (MG/L)
Lackawaxen River Basin									
01430200 - LACKAWAXEN RIVER AT WHITE MILLS, PA (LAT 41 31 30 LONG 075 11 20)									
NOV , 1976 15...	8.0	2.5	10	10	9.0	--	--	--	--
FEB , 1977 24...	7.1	1.5	20	15	66	--	--	--	--
AUG 30...	12	2.0	36	10	9.0	--	76	--	--
01431600 - WALLENPAUPACK CREEK AT EAST STERLING, PA. (LAT 41 20 10 LONG 075 20 25)									
NOV , 1976 22...	9.5	4.0	28	20	11	--	--	--	--
MAR , 1977 01...	4.7	4.5	12	5.0	34	--	92	--	--
AUG 30...	10	2.2	28	8.0	8.0	--	66	--	--
01432119 - LACKAWAXEN RIVER AT MOUTH AT LACKAWAXEN PA (LAT 41 29 12 LONG 074 59 31)									
NOV , 1976 15...	9.5	1.5	12	20	10	--	--	--	--
MAR , 1977 01...	5.5	4.0	12	5.0	33	--	88	--	--
AUG 30...	6.3	.0	18	8.0	7.0	--	48	--	--
Brodhead Creek Basin									
01440650 - BRODHEAD CREEK NEAR ANALOMINK, PA (LAT 41 02 07 LONG 075 12 45)									
NOV , 1976 09...	8.0	.0	20	8.0	9.0	--	--	--	--
FEB , 1977 24...	6.3	1.0	18	5.0	9.0	--	68	--	--
AUG 22...	4.7	.0	26	5.0	10	--	48	--	--
Martins Creek Basin									
01446655 - MARTINS CREEK AT MARTINS CREEK, PA. (LAT 40 46 42 LONG 075 10 36)									
NOV , 1976 22...	31	12	30	70	14	--	4	--	--
FEB , 1977 15...	29	7.0	44	62	30	--	156	8	194
MAY 10...	23	9.5	48	58	16	--	168	--	--
AUG 11...	55	25	148	84	17	--	388	--	--
Lehigh River Basin									
01448850 - BLACK CREEK AT WEATHERLY, PA. (LAT 40 55 52 LONG 075 49 20)									
NOV , 1976 16...	6.3	13	8	52	8.0	<.1	112	--	--
FEB , 1977 22...	8.0	5.0	10	38	13	.1	110	--	--
MAY 18...	5.5	4.0	8	34	9.0	.1	84	--	--
AUG 17...	9.5	14	8	70	10	.1	--	--	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

Lackawaxen River Basin

01430200 - LACKAWAXEN RIVER AT WHITE MILLS, PA (LAT 41 31 30 LONG 075 11 20)

DATE	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ALUMINUM (AL) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
NOV , 1976								
15...	.50	.02	.06	.06	--	190	--	--
FEB , 1977								
24...	.63	.05	.10	.80	--	--	--	--
AUG								
30...	.72	.05	.06	.23	--	150	90	--

01431600 - WALLENPAUPACK CREEK AT EAST STERLING, PA. (LAT 41 20 10 LONG 075 20 25)

DATE	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ALUMINUM (AL) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
NOV , 1976								
22...	.38	.02	.99	1.9	--	90	--	--
MAR , 1977								
01...	.56	.02	.09	.04	--	100	--	--
AUG								
30...	.50	.02	.05	.07	--	190	--	--

01432119 - LACKAWAXEN RIVER AT MOUTH AT LACKAWAXEN PA (LAT 41 29 12 LONG 074 59 31)

DATE	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ALUMINUM (AL) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
NOV , 1976								
15...	.54	.02	.08	.06	--	190	--	--
MAR , 1977								
01...	.59	.03	.12	.04	--	70	--	--
AUG								
30...	.52	.02	.05	.06	--	80	--	--

Brodhead Creek Basin

01440650 - BRODHEAD CREEK NEAR ANALOMINK, PA (LAT 41 02 07 LONG 075 12 45)

DATE	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ALUMINUM (AL) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
NOV , 1976								
09...	.40	.02	.06	.04	--	450	--	--
FEB , 1977								
24...	.72	.04	.12	.08	--	50	--	--
AUG								
22...	.54	.02	.06	.04	--	10	--	--

Martins Creek Basin

01446655 - MARTINS CREEK AT MARTINS CREEK, PA. (LAT 40 46 42 LONG 075 10 36)

DATE	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ALUMINUM (AL) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
NOV , 1976								
22...	2.8	--	.09	.23	--	60	10	.00
FEB , 1977								
15...	3.0	.06	.35	.28	--	160	60	.01
MAY								
10...	1.7	.06	.76	.17	--	110	10	.01
AUG								
11...	3.2	.05	.23	.20	--	2540	160	<.01

Lehigh River Basin

01448850 - BLACK CREEK AT WEATHERLY, PA. (LAT 40 55 52 LONG 075 49 20)

DATE	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ALUMINUM (AL) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
NOV , 1976								
16...	.78	.02	.26	.13	2080	530	--	.00
FEB , 1977								
22...	.90	.04	.66	.30	1540	620	430	.14
MAY								
18...	7.1	.02	.40	.13	1300	250	320	<.01
AUG								
17...	1.0	.02	.32	--	5100	930	1190	.05

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL-LECTING SAMPLE	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	HARD-NESS (CA+MG) (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)
Lehigh River Basin--Continued											
01448901 - NESQUEHONING CREEK AT JIM THORPE, PA (LAT 40 52 31 LONG 075 45 47)											
NOV , 1976 16...	1325	9813	500	6.0	--	--	400	0	0	57	64
FEB , 1977 22...	1315	9813	500	6.2	5.0	--	350	0	0	47	58
MAY 18...	1330	9813	500	6.0	--	--	228	--	0	43	30
AUG 17...	1240	9813	490	--	17.5	8.3	236	--	20	44	31
01450020 - POHOPOCO CREEK AT PARRYVILLE, PA. (LAT 40 48 57 LONG 075 40 21)											
NOV , 1976 17...	1030	9813	70	7.3	4.5	12.7	12	--	0	3.1	1.0
FEB , 1977 22...	1100	9813	70	6.3	.0	--	26	0	0	4.7	3.5
MAY 18...	1100	9813	60	7.5	--	--	15	--	0	3.1	1.7
AUG 17...	1000	9813	70	--	20.0	7.6	15	--	0	.8	.0
01452400 - MONOCACY CREEK NEAR BETHLEHEM, PA. (LAT 40 41 13 LONG 075 20 26)											
NOV , 1976 18...	0935	9813	450	7.5	3.0	13.0	210	--	0	59	15
FEB , 1977 24...	0950	9813	360	7.5	--	--	144	0	0	44	8.0
MAY 10...	1300	9813	500	7.1	10.5	11.8	200	--	0	61	11
AUG 11...	1300	9813	500	7.5	24.0	10.0	236	--	0	69	15
01452600 - MONOCACY CR AT BETHLEHEM, PA. (LAT 40 37 01 LONG 075 22 52)											
NOV , 1976 18...	1045	9813	500	7.8	6.0	11.3	245	--	0	55	26
FEB , 1977 17...	1105	9813	500	8.1	3.0	13.7	200	0	0	57	14
MAY 11...	1130	9813	500	7.6	--	--	200	--	0	51	18
AUG 15...	1055	9813	49	7.7	16.0	8.6	230	--	0	52	24
Tohickon Creek Basin											
01459182 - TOHICKON CR NR QUAKERTOWN, PA. (LAT 40 27 18 LONG 075 16 46)											
NOV , 1976 09...	1400	9813	390	--	5.0	--	138	0	0	30	15
FEB , 1977 16...	1500	9813	310	--	1.0	--	82	0	0	20	7.5
MAY 18...	0900	9813	500	--	20.0	--	128	--	0	33	11
AUG 09...	1500	9813	370	8.5	27.0	8.6	96	0	0	25	8.0
Frankford Creek Basin											
01467087 - FRANKFORD CREEK AT CASTOR AVE, PHILADELPHIA, PA. (LAT 40 01 18 LONG 075 06 13)											
NOV , 1976 30...	1030	9813	340	--	3.0	--	118	0	0	25	13
FEB , 1977 23...	1300	9813	500	--	4.0	--	138	0	0	39	10
MAY 19...	1330	9813	380	--	20.0	--	120	--	0	28	12

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	TOTAL FLUO-RIDE (F) (MG/L)	TOTAL FILT-RABLE RESIDUE (MG/L)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	TOTAL RESI-DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)
Lehigh River Basin--Continued											
01448901 - NESQUEHONING CREEK AT JIM THORPE, PA (LAT 40 52 31 LONG 075 45 47)											
NOV , 1976											
16...	24	390	7.0	--	482	--	--	.58	.01	.26	.06
FEB , 1977											
22...	22	340	8.0	--	446	--	--	.49	.03	.33	.11
MAY											
18...	62	--	8.0	--	392	12	404	.47	.01	.24	.04
AUG											
17...	14	224	8.0	--	--	--	--	.74	.02	.57	.38
01450020 - POHOPOCO CREEK AT PARRYVILLE, PA. (LAT 40 48 57 LONG 075 40 21)											
NOV , 1976											
17...	14	15	9.0	--	56	--	--	1.0	.02	.03	.04
FEB , 1977											
22...	18	10	11	--	70	--	--	1.1	--	.08	.04
MAY											
18...	22	8.0	12	--	32	--	--	1.1	.01	.18	.03
AUG											
17...	24	8.0	18	--	--	--	--	1.1	.02	.28	.04
01452400 - MONOCACY CREEK NEAR BETHLEHEM, PA. (LAT 40 41 13 LONG 075 20 26)											
NOV , 1976											
18...	42	80	15	--	306	--	--	4.7	.03	.03	.12
FEB , 1977											
24...	80	64	20	--	10200	--	--	3.2	.05	.31	.17
MAY											
10...	118	106	16	--	342	--	--	3.6	.03	.10	.06
AUG											
11...	142	108	18	--	428	--	--	1.1	.15	.05	.20
01452600 - MONOCACY CR AT BETHLEHEM, PA. (LAT 40 37 01 LONG 075 22 52)											
NOV , 1976											
18...	132	68	16	--	342	--	--	5.0	.02	.03	.06
FEB , 1977											
17...	168	76	18	--	324	8	332	3.9	.03	.06	.05
MAY											
11...	32	78	17	--	326	6	332	3.1	.03	.07	.04
AUG											
15...	18	60	17	--	404	<10	--	3.0	.04	.11	.06
Tohickon Creek Basin											
01459182 - TOHICKON CR NR QUAKERTOWN, PA. (LAT 40 27 18 LONG 075 16 46)											
NOV , 1976											
09...	76	44	39	.1	254	14	268	2.0	.11	.51	.84
FEB , 1977											
16...	42	40	43	.1	178	10	188	1.3	.05	1.0	.43
MAY											
18...	86	60	52	--	316	16	332	3.1	.13	.18	.97
AUG											
09...	66	32	38	.1	244	<10	--	1.3	.06	.05	1.3
Frankford Creek Basin											
01467087 - FRANKFORD CREEK AT CASTOR AVE, PHILADELPHIA, PA. (LAT 40 01 18 LONG 075 06 13)											
NOV , 1976											
30...	62	52	43	.1	266	12	278	2.6	.24	.02	.34
FEB , 1977											
23...	76	--	56	.2	356	10	366	--	.09	--	.14
MAY											
19...	72	44	47	.1	278	12	290	2.1	.28	.50	.40

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

Lehigh River Basin--Continued

01448901 - NESQUEHONING CREEK AT JIM THORPE, PA (LAT 40 52 31 LONG 075 45 47)

DATE	TOTAL ALUM-INUM (AL) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
NOV , 1976 16...	2450	--	--	--	5300	--	2440	--	--	--
FEB , 1977 22...	690	--	--	--	2640	--	1840	--	--	--
MAY 18...	970	--	--	--	2750	--	1710	--	--	--
AUG 17...	3300	--	--	--	10300	--	3740	--	--	--

01450020 - POHOPOCO CREEK AT PARRYVILLE, PA. (LAT 40 48 57 LONG 075 40 21)

DATE	TOTAL ALUM-INUM (AL) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
NOV , 1976 17...	--	--	--	--	170	--	180	--	--	--
FEB , 1977 22...	--	--	--	--	<10	--	50	--	--	--
MAY 18...	--	--	--	--	80	--	60	--	--	--
AUG 17...	--	--	--	--	80	--	10	--	--	--

01452400 - MONOCACY CREEK NEAR BETHLEHEM, PA. (LAT 40 41 13 LONG 075 20 26)

DATE	TOTAL ALUM-INUM (AL) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
NOV , 1976 18...	--	--	--	--	130	--	--	--	--	--
FEB , 1977 24...	--	--	--	--	690	--	--	--	--	--
MAY 10...	--	--	--	--	120	--	--	--	--	--
AUG 11...	--	--	--	--	450	--	--	--	--	--

01452600 - MONOCACY CR AT BETHLEHEM, PA. (LAT 40 37 01 LONG 075 22 52)

DATE	TOTAL ALUM-INUM (AL) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
NOV , 1976 18...	--	--	--	--	100	--	20	--	--	--
FEB , 1977 17...	--	--	--	--	150	--	40	--	--	--
MAY 11...	--	--	--	--	170	--	30	--	--	--
AUG 16...	--	--	--	--	110	--	10	--	--	--

Tohickon Creek Basin

01459182 - TOHICKON CR NR QUAKERTOWN, PA. (LAT 40 27 18 LONG 075 16 46)

DATE	TOTAL ALUM-INUM (AL) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
NOV , 1976 09...	--	--	--	--	340	--	--	--	--	.00
FEB , 1977 16...	120	<3	<10	10	810	<50	190	40	50	.10
MAY 18...	--	--	--	--	520	--	--	--	--	.08
AUG 09...	--	--	--	--	320	--	--	--	--	--

Frankford Creek Basin

01467087 - FRANKFORD CREEK AT CASTOR AVE, PHILADELPHIA, PA. (LAT 40 01 18 LONG 075 06 13)

DATE	TOTAL ALUM-INUM (AL) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL ZINC (ZN) (UG/L)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
NOV , 1976 30...	--	--	--	--	700	--	--	--	--	.08
FEB , 1977 23...	--	--	--	--	520	--	--	--	--	.12
MAY 19...	--	--	--	--	590	--	--	--	--	.27

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	HARD-NESS (CA+MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)
Schuylkill River Basin										
01472054 - PIGEON CREEK NEAR BUCKTOWN, PA. (LAT 40 11 50 LONG 075 40 10)										
OCT , 1976										
26...	1230	120	7.0	11.0	10.0	38	13	9.5	3.4	5.1
01472065 - PIGEON CREEK NEAR PORTERS MILL, PA. (LAT 40 11 27 LONG 075 38 10)										
OCT , 1976										
26...	1430	140	7.1	12.0	10.4	40	9	10	3.6	5.3
01472080 - PIGEON CREEK NEAR PARKER FORD, PA. (LAT 40 12 03 LONG 075 37 10)										
OCT , 1976										
26...	0915	175	6.8	11.0	9.8	52	19	13	4.8	6.3
01472109 - STONY RUN NEAR SPRING CITY, PA. (LAT 40 10 11 LONG 075 34 45)										
OCT , 1976										
26...	1000	260	6.5	10.0	9.6	74	29	17	7.6	11
01472110 - STONY RUN AT SPRING CITY, PA. (LAT 40 10 01 LONG 075 32 57)										
OCT , 1976										
26...	1845	275	7.0	11.0	9.2	78	39	19	7.5	13
01472126 - FRENCH CREEK NEAR TRYTHALL, PA. (LAT 40 12 00 LONG 075 45 53)										
OCT , 1976										
27...	1045	100	7.0	7.0	11.4	26	9	6.3	2.5	3.2
01472129 - FRENCH CREEK NEAR KNAURERTOWN, PA. (LAT 40 11 09 LONG 075 45 28)										
OCT , 1976										
27...	1200	70	7.1	8.0	10.4	22	5	5.4	2.0	3.0
01472138 - FRENCH CREEK NEAR COVENTRYVILLE, PA. (LAT 40 10 14 LONG 075 41 50)										
OCT , 1976										
27...	0830	120	7.2	8.0	11.4	40	13	9.6	4.0	3.8
01472154 - FRENCH CREEK NEAR PUGHTOWN, PA. (LAT 40 09 14 LONG 075 38 25)										
OCT , 1976										
27...	1400	140	7.3	8.0	11.9	46	14	11	4.4	5.6
01472161 - FRENCH CREEK AT PHOENIXVILLE, PA. (LAT 40 08 07 LONG 075 31 05)										
OCT , 1976										
22...	1130	180	7.2	11.0	11.8	57	26	14	5.3	6.7
01472170 - PICKERING CREEK NEAR EAGLE, PA. (LAT 40 04 43 LONG 075 39 14)										
OCT , 1976										
21...	0845	190	7.1	10.0	11.2	56	27	14	5.2	5.7
01472174 - PICKERING CREEK NEAR CHESTER SPRINGS, PA. (LAT 40 05 22 LONG 075 37 50)										
OCT , 1976										
21...	1000	200	7.0	10.5	10.8	55	22	14	4.9	5.7

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)
Schuylkill River Basin										
01472054 - PIGEON CREEK NEAR BUCKTOWN, PA. (LAT 40 11 50 LONG 075 40 10)										
OCT . 1976 26...	2.0	30	0	25	4.8	20	6.4	.1	12	82
01472065 - PIGEON CREEK NEAR PORTERS MILL, PA. (LAT 40 11 27 LONG 075 38 10)										
OCT . 1976 26...	2.3	37	0	30	4.7	20	7.0	.1	14	85
01472080 - PIGEON CREEK NEAR PARKER FORD, PA. (LAT 40 12 03 LONG 075 37 10)										
OCT . 1976 26...	4.4	40	0	33	10	23	11	.1	13	111
01472109 - STONY RUN NEAR SPRING CITY, PA. (LAT 40 10 11 LONG 075 34 45)										
OCT . 1976 26...	11	54	0	44	27	33	19	.1	14	167
01472110 - STONY RUN AT SPRING CITY, PA. (LAT 40 10 01 LONG 075 32 57)										
OCT . 1976 26...	7.4	48	0	39	7.7	35	21	.1	14	165
01472126 - FRENCH CREEK NEAR TRYTHALL, PA. (LAT 40 12 00 LONG 075 45 53)										
OCT . 1976 27...	1.6	21	0	17	3.4	15	4.8	.1	11	55
01472129 - FRENCH CREEK NEAR KNAURERTOWN, PA. (LAT 40 11 09 LONG 075 45 28)										
OCT . 1976 27...	1.0	20	0	16	2.5	13	3.2	.1	9.1	45
01472138 - FRENCH CREEK NEAR COVENTRYVILLE, PA. (LAT 40 10 14 LONG 075 41 50)										
OCT . 1976 27...	2.0	33	0	27	3.4	17	6.7	.1	14	82
01472154 - FRENCH CREEK NEAR PUGHTOWN, PA. (LAT 40 09 14 LONG 075 38 25)										
OCT . 1976 27...	2.5	39	0	32	3.1	18	9.5	.1	16	94
01472161 - FRENCH CREEK AT PHOENIXVILLE, PA. (LAT 40 08 07 LONG 075 31 05)										
OCT . 1976 22...	3.8	37	0	30	3.6	27	12	.2	13	118
01472170 - PICKERING CREEK NEAR EAGLE, PA. (LAT 40 04 43 LONG 075 39 14)										
OCT . 1976 21...	4.7	36	0	30	4.6	21	13	.1	14	110
01472174 - PICKERING CREEK NEAR CHESTER SPRINGS, PA. (LAT 40 05 22 LONG 075 37 50)										
OCT . 1976 21...	4.7	41	0	34	6.6	21	12	.1	14	110

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL ORGANIC NITRO-GEN (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL ORTHO PHOS-PHORUS (P) (MG/L)
Schuylkill River Basin										
01472054 - PIGEON CREEK NEAR BUCKTOWN, PA. (LAT 40 11 50 LONG 075 40 10)										
OCT , 1976 26...	74	.63	.01	.64	.04	.21	.25	.89	.06	.03
01472065 - PIGEON CREEK NEAR PORTERS MILL, PA. (LAT 40 11 27 LONG 075 38 10)										
OCT , 1976 26...	81	.86	.01	.87	.05	.40	.45	1.3	.06	.03
01472080 - PIGEON CREEK NEAR PARKER FORD, PA. (LAT 40 12 03 LONG 075 37 10)										
OCT , 1976 26...	96	1.2	.03	1.2	.17	.68	.85	2.1	.17	.07
01472109 - STONY RUN NEAR SPRING CITY, PA. (LAT 40 10 11 LONG 075 34 45)										
OCT , 1976 26...	140	1.9	.03	1.9	.47	1.6	2.1	4.0	.52	.37
01472110 - STONY RUN AT SPRING CITY, PA. (LAT 40 10 01 LONG 075 32 57)										
OCT , 1976 26...	141	2.6	.07	2.7	.30	1.2	1.5	4.2	.42	.23
01472126 - FRENCH CREEK NEAR TRYTHALL, PA. (LAT 40 12 00 LONG 075 45 53)										
OCT , 1976 27...	55	.28	.01	.29	.10	.30	.40	.69	.03	.01
01472129 - FRENCH CREEK NEAR KNAURERTOWN, PA. (LAT 40 11 09 LONG 075 45 28)										
OCT , 1976 27...	47	.11	.01	.12	.04	.21	.25	.37	.03	.00
01472138 - FRENCH CREEK NEAR COVENTRYVILLE, PA. (LAT 40 10 14 LONG 075 41 50)										
OCT , 1976 27...	74	.35	.01	.36	.04	.26	.30	.66	.04	.01
01472154 - FRENCH CREEK NEAR PUGHTOWN, PA. (LAT 40 09 14 LONG 075 38 25)										
OCT , 1976 27...	87	.92	.01	.93	.09	.36	.45	1.4	.04	.01
01472161 - FRENCH CREEK AT PHOENIXVILLE, PA. (LAT 40 08 07 LONG 075 31 05)										
OCT , 1976 22...	101	.45	.01	.46	.09	.26	.35	.81	.08	.03
01472170 - PICKERING CREEK NEAR EAGLE, PA. (LAT 40 04 43 LONG 075 39 14)										
OCT , 1976 21...	96	1.2	.01	1.2	.10	.63	.73	1.9	.17	.04
01472174 - PICKERING CREEK NEAR CHESTER SPRINGS, PA. (LAT 40 05 22 LONG 075 37 50)										
OCT , 1976 21...	97	1.4	.01	1.4	.07	.63	.70	2.1	.13	.04

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED CHROMIUM (CR) (UG/L)	DISSOLVED COBALT (CO) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	DISSOLVED NICKEL (NI) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
Schuylkill River Basin									
01472054 - PIGEON CREEK NEAR BUCKTOWN, PA. (LAT 40 11 50 LONG 075 40 10)									
OCT , 1976 26...	16	<10	0	10	160	2	60	6	20
01472065 - PIGEON CREEK NEAR PORTERS MILL, PA. (LAT 40 11 27 LONG 075 38 10)									
OCT , 1976 26...	1	<10	0	10	140	2	80	2	20
01472080 - PIGEON CREEK NEAR PARKER FORD, PA. (LAT 40 12 03 LONG 075 37 10)									
OCT , 1976 26...	1	<10	0	10	210	2	90	8	30
01472109 - STONY RUN NEAR SPRING CITY, PA. (LAT 40 10 11 LONG 075 34 45)									
OCT , 1976 26...	1	<10	0	10	290	270	160	7	20
01472110 - STONY RUN AT SPRING CITY, PA. (LAT 40 10 01 LONG 075 32 57)									
OCT , 1976 26...	1	<10	0	10	180	4	130	2	10
01472126 - FRENCH CREEK NEAR TRYTHALL, PA. (LAT 40 12 00 LONG 075 45 53)									
OCT , 1976 27...	2	<10	0	10	220	5	40	5	10
01472129 - FRENCH CREEK NEAR KNAURERTOWN, PA. (LAT 40 11 09 LONG 075 45 28)									
OCT , 1976 27...	1	<10	0	0	210	5	70	4	10
01472138 - FRENCH CREEK NEAR COVENTRYVILLE, PA. (LAT 40 10 14 LONG 075 41 50)									
OCT , 1976 27...	1	<10	0	10	240	4	20	6	10
01472154 - FRENCH CREEK NEAR PUGHTOWN, PA. (LAT 40 09 14 LONG 075 38 25)									
OCT , 1976 27...	1	<10	0	10	200	7	40	4	10
01472161 - FRENCH CREEK AT PHOENIXVILLE, PA. (LAT 40 08 07 LONG 075 31 05)									
OCT , 1976 22...	2	<10	0	10	270	21	210	6	120
01472170 - PICKERING CREEK NEAR EAGLE, PA. (LAT 40 04 43 LONG 075 39 14)									
OCT , 1976 21...	1	<10	2	10	210	0	90	5	20
01472174 - PICKERING CREEK NEAR CHESTER SPRINGS, PA. (LAT 40 05 22 LONG 075 37 50)									
OCT , 1976 21...	1	<10	2	10	220	4	80	5	20

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

Schuylkill River Basin--Continued

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)
01472185 - PICKERING CREEK TRIB NR KIMBERTON, PA. (LAT 40 06 49 LONG 075 36 18)										
OCT , 1976 22...	0815	--	180	7.2	8.5	11.2	60	25	--	--
01472188 - PICKERING CREEK AT CHARLESTOWN, PA. (LAT 40 06 05 LONG 075 34 17)										
OCT , 1976 22...	0945	--	180	7.2	9.0	11.8	61	27	--	--
01472191 - PICKERING CREEK NEAR PHOENIXVILLE, PA. (LAT 40 06 33 LONG 075 31 42)										
OCT , 1976 22...	1030	--	190	7.4	9.0	12.2	60	26	--	--
01472820 - EAST BR PERKIOMEN CREEK AT SCHWENKSVILLE, PA. (LAT 40 15 29 LONG 075 26 29)										
NOV , 1976 09...	0830	9813	415	--	2.0	--	144	--	0	0
FEB , 1977 15...	0830	9813	320	--	2.0	--	80	--	0	0
MAY 03...	0930	9813	290	--	14.0	--	90	--	--	0
AUG 01...	1000	9813	500	8.5	23.0	5.7	160	--	--	0
01473140 - SKIPPACK CREEK AT ARCOLA, PA. (LAT 40 09 01 LONG 075 26 46)										
NOV , 1976 30...	0830	9813	700	--	2.0	--	150	--	0	0
FEB , 1977 15...	0930	9813	450	--	1.0	--	104	--	0	0
MAY 12...	0930	9813	500	--	13.0	--	118	--	0	0
AUG 03...	1100	9813	260	9.0	22.0	9.5	146	--	--	0
01473167 - LITTLE VALLEY CR NR VALLEY FORGE, PA. (LAT 40 03 51 LONG 075 28 22)										
OCT , 1976 29...	0900	--	580	7.7	7.0	12.0	220	66	--	--
01473168 - VALLEY CREEK NR VALLEY FORGE, PA. (LAT 40 04 08 LONG 075 28 25)										
OCT , 1976 29...	0945	--	580	8.0	7.0	12.0	260	63	--	--
01473170 - VALLEY CR AT VALLEY FORGE STATE PARK, PA. (LAT 40 04 53 LONG 075 27 25)										
NOV , 1976 22...	1030	9813	600	--	6.0	--	232	--	0	0
FEB , 1977 15...	1000	9813	500	--	6.0	--	200	--	0	0
MAY 02...	0900	9813	660	--	15.0	--	200	--	--	0
AUG 08...	0900	9813	500	8.5	20.5	9.0	200	--	0	0

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)
Schuylkill River Basin--Continued										
01472185 - PICKERING CREEK TRIB NR KIMBERTON, PA. (LAT 40 06 49 LONG 075 36 18)										
OCT , 1976 22...	15	5.4	6.0	3.2	42	0	34	3.4	19	15
01472188 - PICKERING CREEK AT CHARLESTOWN, PA. (LAT 40 06 05 LONG 075 34 17)										
OCT , 1976 22...	15	5.6	6.1	3.5	41	0	34	4.1	19	15
01472191 - PICKERING CREEK NEAR PHOENIXVILLE, PA. (LAT 40 06 33 LONG 075 31 42)										
OCT , 1976 22...	15	5.5	6.1	3.5	42	0	34	2.7	21	13
01472820 - EAST BR PERKIOMEN CREEK AT SCHWENKSVILLE, PA. (LAT 40 15 29 LONG 075 26 29)										
NOV , 1976 09...	31	16	--	--	--	--	78	--	38	46
FEB , 1977 15...	20	7.1	--	--	--	--	40	--	38	48
MAY 03...	22	8.5	--	--	--	--	170	--	38	34
AUG 01...	42	13	--	--	--	--	116	--	60	78
01473140 - SKIPPACK CREEK AT ARCOLA, PA. (LAT 40 09 01 LONG 075 26 46)										
NOV , 1976 30...	38	13	--	--	--	--	122	--	58	118
FEB , 1977 15...	28	8.5	--	--	--	--	60	--	42	96
MAY 12...	28	11	--	--	--	--	16	--	44	56
AUG 03...	22	22	--	--	--	--	138	--	35	234
01473167 - LITTLE VALLEY CR NR VALLEY FORGE, PA. (LAT 40 03 51 LONG 075 28 22)										
OCT , 1976 29...	54	20	28	3.0	184	0	151	5.9	41	50
01473168 - VALLEY CREEK NR VALLEY FORGE, PA. (LAT 40 04 08 LONG 075 28 25)										
OCT , 1976 29...	46	35	22	3.1	239	0	196	3.8	35	34
01473170 - VALLEY CR AT VALLEY FORGE STATE PARK, PA. (LAT 40 04 53 LONG 075 27 25)										
NOV , 1976 22...	44	30	--	--	--	--	36	--	38	42
FEB , 1977 15...	4.6	21	--	--	--	--	178	--	44	61
MAY 02...	48	19	--	--	--	--	180	--	40	42
AUG 08...	48	19	--	--	--	--	170	--	35	41

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED FLUO-RIDE (F) (MG/L)	TOTAL FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	TOTAL FILT-RABLE RESIDUE (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	TOTAL RESI-DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)
Schuylkill River Basin--Continued										
01472185 - PICKERING CREEK TRIB NR KIMBERTON, PA. (LAT 40 06 49 LONG 075 36 18)										
OCT , 1976 22...	.1	--	16	108	--	101	--	--	1.1	.02
01472188 - PICKERING CREEK AT CHARLESTOWN, PA. (LAT 40 06 05 LONG 075 34 17)										
OCT , 1976 22...	.1	--	16	113	--	101	--	--	.67	.01
01472191 - PICKERING CREEK NEAR PHOENIXVILLE, PA. (LAT 40 06 33 LONG 075 31 42)										
OCT , 1976 22...	.1	--	16	118	--	101	--	--	.73	.01
01472820 - EAST BR PERKIOMEN CREEK AT SCHWENKSVILLE, PA. (LAT 40 15 29 LONG 075 26 29)										
NOV , 1976 09...	--	.1	--	--	264	--	10	274	2.7	.07
FEB , 1977 15...	--	.1	--	--	180	--	22	202	2.6	.04
MAY 03...	--	.1	--	--	198	--	6	204	2.5	.07
AUG 01...	--	--	--	--	402	--	0	402	.50	.02
01473140 - SKIPPACK CREEK AT ARCOLA, PA. (LAT 40 09 01 LONG 075 26 46)										
NOV , 1976 30...	--	.1	--	--	458	--	6	464	5.3	.12
FEB , 1977 15...	--	.1	--	--	270	--	26	296	3.9	.07
MAY 12...	--	.1	--	--	288	--	4	292	2.9	.13
AUG 03...	--	.2	--	--	520	--	<10	--	1.2	.03
01473167 - LITTLE VALLEY CR NR VALLEY FORGE, PA. (LAT 40 03 51 LONG 075 28 22)										
OCT , 1976 29...	.2	--	8.5	314	--	296	--	--	3.5	.05
01473168 - VALLEY CREEK NR VALLEY FORGE, PA. (LAT 40 04 08 LONG 075 28 25)										
OCT , 1976 29...	.1	--	7.6	308	--	301	--	--	1.9	.01
01473170 - VALLEY CR AT VALLEY FORGE STATE PARK, PA. (LAT 40 04 53 LONG 075 27 25)										
NOV , 1976 22...	--	.1	--	--	382	--	10	392	3.2	.12
FEB , 1977 15...	--	.1	--	--	302	--	24	326	3.2	.06
MAY 02...	--	.1	--	--	320	--	10	--	2.8	.03
AUG 08...	--	--	--	--	368	--	22	--	2.4	.03

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

Schuylkill River Basin--Continued

DATE	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ORTHO PHOSPHORUS (P) (MG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED CHROMIUM (CR) (UG/L)	DISSOLVED COBALT (CO) (UG/L)
01472185 - PICKERING CREEK TRIB NR KIMBERTON, PA. (LAT 40 06 49 LONG 075 36 18)										
OCT , 1976 22...	1.1	.06	.29	.35	1.5	.04	.02	1	<10	0
01472188 - PICKERING CREEK AT CHARLESTOWN, PA. (LAT 40 06 05 LONG 075 34 17)										
OCT , 1976 22...	.68	.05	.15	.20	.88	.04	.03	1	<10	0
01472191 - PICKERING CREEK NEAR PHOENIXVILLE, PA. (LAT 40 06 33 LONG 075 31 42)										
OCT , 1976 22...	.74	.05	.25	.30	1.0	.04	.03	1	<10	0
01472820 - EAST BR PERKIOMEN CREEK AT SCHWENKSVILLE, PA. (LAT 40 15 29 LONG 075 26 29)										
NOV , 1976 09...	--	.17	--	--	--	.56	--	--	--	--
FEB , 1977 15...	--	.64	--	--	--	.37	--	--	--	--
MAY 03...	--	.19	--	--	--	.22	--	--	--	--
AUG 01...	--	.05	--	--	--	.57	--	--	--	--
01473140 - SKIPPACK CREEK AT ARCOLA, PA. (LAT 40 09 01 LONG 075 26 46)										
NOV , 1976 30...	--	3.4	--	--	--	2.9	--	--	--	--
FEB , 1977 15...	--	1.9	--	--	--	.71	--	--	--	--
MAY 12...	--	.18	--	--	--	.70	--	--	--	--
AUG 03...	--	.10	--	--	--	2.4	--	--	--	--
01473167 - LITTLE VALLEY CR NR VALLEY FORGE, PA. (LAT 40 03 51 LONG 075 28 22)										
OCT , 1976 29...	3.5	.06	.34	.40	3.9	.19	.17	1	<10	0
01473168 - VALLEY CREEK NR VALLEY FORGE, PA. (LAT 40 04 08 LONG 075 28 25)										
OCT , 1976 29...	1.9	.03	.17	.20	2.1	.05	.03	1	<10	0
01473170 - VALLEY CR AT VALLEY FORGE STATE PARK, PA. (LAT 40 04 53 LONG 075 27 25)										
NOV , 1976 22...	--	.09	--	--	--	.09	--	--	--	--
FEB , 1977 15...	--	.12	--	--	--	.12	--	--	--	--
MAY 02...	--	.16	--	--	--	.06	--	--	--	--
AUG 08...	--	.09	--	--	--	.16	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)	PHENOLS (UG/L)
Schuylkill River Basin--Continued									
01472185 - PICKERING CREEK TRIB NR KIMBERTON, PA. (LAT 40 06 49 LONG 075 36 18)									
OCT , 1976 22...	10	--	150	250	80	4	10	--	--
01472188 - PICKERING CREEK AT CHARLESTOWN, PA. (LAT 40 06 05 LONG 075 34 17)									
OCT , 1976 22...	0	--	180	79	80	2	10	--	--
01472191 - PICKERING CREEK NEAR PHOENIXVILLE, PA. (LAT 40 06 33 LONG 075 31 42)									
OCT , 1976 22...	0	--	160	0	70	4	10	--	--
01472820 - EAST BR PERKIOMEN CREEK AT SCHWENKSVILLE, PA. (LAT 40 15 29 LONG 075 26 29)									
NOV , 1976 09...	--	140	--	--	--	--	--	.00	--
FEB , 1977 15...	--	420	--	--	--	--	--	<.01	--
MAY 03...	--	90	--	--	--	--	--	<.01	--
AUG 01...	--	140	--	--	--	--	--	--	--
01473140 - SKIPPACK CREEK AT ARCOLA, PA. (LAT 40 09 01 LONG 075 26 46)									
NOV , 1976 30...	--	340	--	--	--	--	--	.10	--
FEB , 1977 15...	--	780	--	--	--	--	--	<.01	--
MAY 12...	--	140	--	--	--	--	--	<.01	--
AUG 03...	--	110	--	--	--	--	--	--	--
01473167 - LITTLE VALLEY CR NR VALLEY FORGE, PA. (LAT 40 03 51 LONG 075 28 22)									
OCT , 1976 29...	10	--	20	3	40	2	20	--	--
01473168 - VALLEY CREEK NR VALLEY FORGE, PA. (LAT 40 04 08 LONG 075 28 25)									
OCT , 1976 29...	10	--	20	5	30	3	10	--	--
01473170 - VALLEY CR AT VALLEY FORGE STATE PARK, PA. (LAT 40 04 53 LONG 075 27 25)									
NOV , 1976 22...	--	240	--	--	--	--	--	.00	--
FEB , 1977 15...	--	710	--	--	--	--	--	<.01	--
MAY 02...	--	290	--	--	--	--	--	<.01	--
AUG 08...	--	940	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL- LECTING SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	DIS- SOLVED OXYGEN (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)
Darby Creek Basin										
01475300 - DARBY CREEK AT WATERLOO MILLS NEAR DEVON, PA. (LAT 40 01 21 LONG 075 25 20)										
OCT , 1976										
28...	0845	--	335	7.2	5.5	11.9	97	27	--	--
01475470 - DARBY CREEK AT UPPER DARBY, PA. (LAT 39 56 04 LONG 075 18 00)										
NOV , 1976										
22...	1[illegible]00	9813	400	--	5.0	--	118	--	0	0
FEB , 1977										
15...	1100	9813	400	--	5.0	--	96	--	0	0
MAY										
23...	1100	9813	300	--	21.0	--	94	--	--	0
AUG										
08...	1030	9813	265	8.5	25.0	9.0	80	--	--	0
Crum Creek Basin										
01475830 - EAST BRANCH CRUM CREEK NEAR PAOLI, PA. (LAT 40 00 28 LONG 075 27 55)										
OCT , 1976										
28...	0945	--	220	7.1	6.0	12.2	73	21	--	--
01475840 - WEST BRANCH CRUM CREEK NEAR PAOLI, PA. (LAT 39 59 52 LONG 075 27 38)										
OCT , 1976										
28...	1030	--	190	7.2	5.0	12.2	65	18	--	--
Ridley Creek Basin										
01476430 - RIDLEY CREEK NEAR GOSHENVILLE, PA. (LAT 39 59 26 LONG 075 32 38)										
OCT , 1976										
20...	1000	--	220	7.3	10.0	11.0	54	20	--	--
01476435 - RIDLEY CREEK NEAR DUTTON MILL, PA. (LAT 39 58 50 LONG 075 31 00)										
OCT , 1976										
20...	0915	--	190	7.1	10.0	11.0	55	19	--	--
01476510 - RIDLEY CREEK NR GRADYVILLE, PA. (LAT 39 52 28 LONG 075 22 56)										
NOV , 1976										
22...	1[illegible]30	9813	250	--	5.0	--	85	--	0	0
FEB , 1977										
15...	1130	9813	240	--	3.0	--	60	--	0	0
MAY										
23...	1000	9813	240	--	20.0	--	72	--	--	0
AUG										
08...	1130	9813	235	7.5	23.0	9.0	60	--	0	0
Chester Creek Basin										
01476790 - CHESTER CREEK NEAR WEST CHESTER, PA. (LAT 39 59 49 LONG 075 35 40)										
OCT , 1976										
21...	1445	--	250	6.9	13.0	10.2	65	33	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)
Darby Creek Basin										
01475300 - DARBY CREEK AT WATERLOO MILLS NEAR DEVON, PA. (LAT 40 01 21 LONG 075 25 20)										
OCT , 1976										
28...	23	9.7	13	2.9	86	0	71	8.7	29	22
01475470 - DARBY CREEK AT UPPER DARBY, PA. (LAT 39 56 04 LONG 075 18 00)										
NOV , 1976										
22...	24	14	--	--	--	--	72	--	38	38
FEB , 1977										
15...	24	9.0	--	--	--	--	62	--	40	78
MAY										
23...	23	9.0	--	--	--	--	64	--	24	39
AUG										
08...	18	8.5	--	--	--	--	52	--	14	26
Crum Creek Basin										
01475830 - EAST BRANCH CRUM CREEK NEAR PAOLI, PA. (LAT 40 00 28 LONG 075 27 55)										
OCT , 1976										
28...	14	9.3	8.7	2.0	64	0	53	8.1	16	14
01475840 - WEST BRANCH CRUM CREEK NEAR PAOLI, PA. (LAT 39 59 52 LONG 075 27 38)										
OCT , 1976										
28...	13	8.0	7.5	1.9	58	0	48	5.9	16	12
Ridley Creek Basin										
01476430 - RIDLEY CREEK NEAR GOSHENVILLE, PA. (LAT 39 59 26 LONG 075 32 38)										
OCT , 1976										
20...	11	6.4	9.6	2.0	41	0	34	3.3	13	15
01476435 - RIDLEY CREEK NEAR DUTTON MILL, PA. (LAT 39 58 50 LONG 075 31 00)										
OCT , 1976										
20...	11	6.8	8.9	2.4	45	0	37	5.7	11	15
01476510 - RIDLEY CREEK NR GRADYVILLE, PA. (LAT 39 52 28 LONG 075 22 56)										
NOV , 1976										
22...	13	12	--	--	--	--	120	--	25	23
FEB , 1977										
15...	12	7.5	--	--	--	--	36	--	28	43
MAY										
23...	14	9.0	--	--	--	--	48	--	18	33
AUG										
08...	15	5.5	--	--	--	--	42	--	18	23
Chester Creek Basin										
01476790 - CHESTER CREEK NEAR WEST CHESTER, PA. (LAT 39 59 49 LONG 075 35 40)										
OCT , 1976										
21...	15	6.8	12	2.3	40	0	33	8.1	18	26

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED FLUO-RIDE (F) (MG/L)	TOTAL FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	TOTAL FILT-RABLE RESIDUE (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	TOTAL RESI-DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)
Darby Creek Basin										
01475300 - DARBY CREEK AT WATERLOO MILLS NEAR DEVON, PA. (LAT 40 01 21 LONG 075 25 20)										
OCT , 1976										
28...	.1	--	17	169	--	159	--	--	2.0	.07
01475470 - DARBY CREEK AT UPPER DARBY, PA. (LAT 39 56 04 LONG 075 18 00)										
NOV , 1976										
22...	--	<.1	--	--	234	--	18	252	4.4	.14
FEB , 1977										
15...	--	<.1	--	--	218	--	14	232	3.7	.08
MAY										
23...	--	<.1	--	--	206	--	6	212	3.4	.05
AUG										
08...	--	<.1	--	--	228	--	16	--	1.7	.03
Crum Creek Basin										
01475830 - EAST BRANCH CRUM CREEK NEAR PAOLI, PA. (LAT 40 00 28 LONG 075 27 55)										
OCT , 1976										
28...	.1	--	16	128	--	112	--	--	2.1	.01
01475840 - WEST BRANCH CRUM CREEK NEAR PAOLI, PA. (LAT 39 59 52 LONG 075 27 38)										
OCT , 1976										
28...	.1	--	17	107	--	104	--	--	1.7	.01
Ridley Creek Basin										
01476430 - RIDLEY CREEK NEAR GOSHENVILLE, PA. (LAT 39 59 26 LONG 075 32 38)										
OCT , 1976										
20...	.1	--	12	108	--	90	--	--	2.0	.01
01476435 - RIDLEY CREEK NEAR DUTTON MILL, PA. (LAT 39 58 50 LONG 075 31 00)										
OCT , 1976										
20...	.1	--	15	108	--	93	--	--	2.0	.01
01476510 - RIDLEY CREEK NR GRADYVILLE, PA. (LAT 39 52 28 LONG 075 22 56)										
NOV , 1976										
22...	--	.1	--	--	162	--	6	168	3.4	.07
FEB , 1977										
15...	--	.1	--	--	128	--	26	154	2.1	.04
MAY										
23...	--	.2	--	--	186	--	12	198	3.7	.18
AUG										
08...	--	.2	--	--	162	--	12	--	2.5	.13
Chester Creek Basin										
01476790 - CHESTER CREEK NEAR WEST CHESTER, PA. (LA 9 59 49 LONG 075 35 40)										
OCT , 1976										
21...	.1	--	8.6	140	--	109	--	--	3.5	.01

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ORTHO PHOSPHORUS (P) (MG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED CHROMIUM (CR) (UG/L)	DISSOLVED COBALT (CO) (UG/L)
Darby Creek Basin										
01475300 - DARBY CREEK AT WATERLOO MILLS NEAR DEVON, PA. (LAT 40 01 21 LONG 075 25 20)										
OCT , 1976										
20...	2.1	.41	.14	.55	2.7	.29	.22	1	<10	0
01475470 - DARBY CREEK AT UPPER DARBY, PA. (LAT 39 56 04 LONG 075 18 00)										
NOV , 1976										
22...	--	1.3	--	--	--	1.6	--	--	--	--
FEB , 1977										
15...	--	1.3	--	--	--	.67	--	--	--	--
MAY										
23...	--	.21	--	--	--	.08	--	--	--	--
AUG										
08...	--	.09	--	--	--	--	--	--	--	--
Crum Creek Basin										
01475830 - EAST BRANCH CRUM CREEK NEAR PAOLI, PA. (LAT 40 00 28 LONG 075 27 55)										
OCT , 1976										
28...	2.1	.05	.20	.25	2.4	.03	.01	1	<10	1
01475840 - WEST BRANCH CRUM CREEK NEAR PAOLI, PA. (LAT 39 59 52 LONG 075 27 38)										
OCT , 1976										
28...	1.7	.03	.22	.25	2.0	.03	.01	1	<10	0
Ridley Creek Basin										
01476430 - RIDLEY CREEK NEAR GOSHENVILLE, PA. (LAT 39 59 26 LONG 075 32 38)										
OCT , 1976										
20...	2.0	.08	.25	.33	2.3	.09	.09	0	<10	1
01476435 - RIDLEY CREEK NEAR DUTTON MILL, PA. (LAT 39 58 50 LONG 075 31 00)										
OCT , 1976										
20...	2.0	.11	.37	.48	2.5	.08	.05	1	<10	2
01476510 - RIDLEY CREEK NR GRADYVILLE, PA. (LAT 39 52 28 LONG 075 22 56)										
NOV , 1976										
22...	--	1.2	--	--	--	.97	--	--	--	--
FEB , 1977										
15...	--	.70	--	--	--	.32	--	--	--	--
MAY										
23...	--	.28	--	--	--	.57	--	--	--	--
AUG										
08...	--	.17	--	--	--	.56	--	--	--	--
Chester Creek Basin										
01476790 - CHESTER CREEK NEAR WEST CHESTER, PA. (LAT 39 59 49 LONG 075 35 40)										
OCT , 1976										
21...	3.5	.05	.25	.30	3.8	.05	.03	0	<10	1

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)	PHENOLS (UG/L)
Darby Creek Basin									
01475300 - DARBY CREEK AT WATERLOO MILLS NEAR DEVON, PA. (LAT 40 01 21 LONG 075 25 20)									
OCT , 1976 28...	10	--	130	3	70	4	10	--	--
01475470 - DARBY CREEK AT UPPER DARBY, PA. (LAT 39 56 04 LONG 075 18 00)									
NOV , 1976 22...	--	250	--	--	--	--	--	.00	--
FEB , 1977 15...	--	570	--	--	--	--	--	.02	--
MAY 23...	--	290	--	--	--	--	--	<.01	--
AUG 08...	--	640	--	--	--	--	--	--	--
Crum Creek Basin									
01475830 - EAST BRANCH CRUM CREEK NEAR PAOLI, PA. (LAT 40 00 28 LONG 075 27 55)									
OCT , 1976 28...	0	--	140	3	20	4	10	--	--
01475840 - WEST BRANCH CRUM CREEK NEAR PAOLI, PA. (LAT 39 59 52 LONG 075 27 38)									
OCT , 1976 28...	0	--	130	5	20	4	0	--	--
Ridley Creek Basin									
01476430 - RIDLEY CREEK NEAR GOSHENVILLE, PA. (LAT 39 59 26 LONG 075 32 38)									
OCT , 1976 20...	0	--	100	24	120	4	10	--	--
01476435 - RIDLEY CREEK NEAR DUTTON MILL, PA. (LAT 39 58 50 LONG 075 31 00)									
OCT , 1976 20...	10	--	150	46	60	9	20	--	--
01476510 - RIDLEY CREEK NR GRADYVILLE, PA. (LAT 39 52 28 LONG 075 22 56)									
NOV , 1976 22...	--	320	--	--	--	--	--	.00	--
FEB , 1977 15...	--	660	--	--	--	--	--	<.01	--
MAY 23...	--	820	--	--	--	--	--	.15	--
AUG 08...	--	520	--	--	--	--	--	--	--
Chester Creek Basin									
01476790 - CHESTER CREEK NEAR WEST CHESTER, PA. (LAT 39 59 49 LONG 075 35 40)									
OCT , 1976 21...	0	--	50	1	50	3	20	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COL-LECTING SAMPLE	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)
Chester Creek Basin--Continued										
01476830 - CHESTER CREEK NEAR MILLTOWN, PA. (LAT 39 58 21 LONG 075 32 57)										
OCT , 1976										
21...	1445	--	230	7.4	13.5	10.8	76	31	--	--
01476835 - CHESTER CREEK AT WESTTOWN SCHOOL, PA. (LAT 39 56 21 LONG 075 32 28)										
OCT , 1976										
28...	1130	--	245	7.0	8.0	11.8	82	35	--	--
01476840 - GOOSE CREEK NEAR WEST CHESTER, PA. (LAT 39 56 01 LONG 075 33 31)										
OCT , 1976										
20...	1045	--	900	7.5	15.0	5.6	150	22	--	--
01476848 - EAST BR CHESTER CREEK NR WEST CHESTER, PA (LAT 39 55 45 LONG 075 32 00)										
NOV , 1976										
08...	1400	9813	130	--	6.0	--	55	--	0	0
22...	1100	9813	470	--	5.5	--	110	--	0	0
FEB , 1977										
08...	1400	9813	900	--	2.0	--	110	--	0	0
MAY										
02...	0945	9813	440	--	16.0	--	90	--	--	0
12...	1[illegible]00	9813	110	--	15.0	--	35	--	0	0
AUG										
08...	1[illegible]30	9813	426	7.5	28.0	7.8	78	--	--	0
Christina River Basin										
01478120 - WHITE CLAY CREEK NEAR AVONDALE, PA. (LAT 39 49 30 LONG 075 46 52)										
OCT , 1976										
29...	1445	--	320	7.7	9.0	12.2	120	38	--	--
01478190 - WHITE CLAY CREEK NEAR WICKERTON, PA. (LAT 39 47 44 LONG 075 49 27)										
NOV , 1976										
01...	0938	--	190	7.0	8.0	11.2	57	24	--	--
01478220 - W BR WHITE CLAY CR NR CHESTERVILLE, PA. (LAT 39 45 56 LONG 075 47 47)										
NOV , 1976										
01...	1030	--	170	7.0	8.0	11.6	49	17	--	--
01478240 - WHITE CLAY CREEK NEAR STRICKERSVILLE, PA. (LAT 39 44 54 LONG 075 46 12)										
NOV , 1976										
08...	1[illegible]30	9813	150	--	6.0	--	50	--	0	0
FEB , 1977										
08...	1130	9813	170	--	.0	--	58	--	0	0
MAY										
12...	1[illegible]30	9813	120	--	14.0	--	40	--	0	0
JUL										
26...	1[illegible]30	9813	265	7.8	2.0	8.3	98	--	--	0

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)
Chester Creek Basin--Continued										
01476830 - CHESTER CREEK NEAR MILLTOWN, PA. (LAT 39 58 21 LONG 075 32 57)										
OCT , 1976										
21...	17	8.2	5.3	5.2	55	0	45	3.5	22	11
01476835 - CHESTER CREEK AT WESTTOWN SCHOOL, PA. (LAT 39 56 21 LONG 075 32 28)										
OCT , 1976										
28...	18	9.0	10	3.8	57	0	47	9.1	27	17
01476840 - GOOSE CREEK NEAR WEST CHESTER, PA. (LAT 39 56 01 LONG 075 33 31)										
OCT , 1976										
20...	37	14	64	25	156	0	128	7.9	94	100
01476848 - EAST BR CHESTER CREEK NR WEST CHESTER, PA (LAT 39 55 45 LONG 075 32 00)										
NOV , 1976										
08...	10	7.2	--	--	--	--	28	--	6.0	13
22...	25	11	--	--	--	--	118	--	42	45
FEB , 1977										
08...	26	11	--	--	--	--	160	--	72	96
MAY										
02...	22	8.5	--	--	--	--	80	--	36	43
12...	9.5	3.0	--	--	--	--	50	--	15	11
AUG										
08...	18	8.0	--	--	--	--	68	--	28	43
Christina River Basin										
01478120 - WHITE CLAY CREEK NEAR AVONDALE, PA. (LAT 39 49 39 LONG 075 46 52)										
OCT , 1976										
29...	28	12	6.7	3.0	99	0	81	3.2	24	14
01478190 - WHITE CLAY CREEK NEAR WICKERTON, PA. (LAT 39 47 44 LONG 075 49 27)										
NOV , 1976										
01...	13	5.9	5.7	5.6	40	0	33	6.4	21	13
01478220 - W BR WHITE CLAY CR NR CHESTERVILLE, PA. (LAT 39 45 56 LONG 075 47 47)										
NOV , 1976										
01...	12	4.6	5.5	6.8	39	0	32	6.2	29	10
01478240 - WHITE CLAY CREEK NEAR STRICKERSVILLE, PA. (LAT 39 44 54 LONG 075 46 12)										
NOV , 1976										
08...	14	3.5	--	--	--	--	36	--	8.0	12
FEB , 1977										
08...	15	5.0	--	--	--	--	34	--	15	14
MAY										
12...	11	3.0	--	--	--	--	24	--	15	12
JUL										
26...	--	--	--	--	--	--	38	--	20	18

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

Chester Creek Basin--Continued

01476830 - CHESTER CREEK NEAR MILLTOWN, PA. (LAT 39 58 21 LONG 075 32 57)

DATE	DIS-SOLVED FLUO-RIDE (F) (MG/L)	TOTAL FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	TOTAL FILT-RABLE RESIDUE (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	TOTAL RESI-DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)
OCT , 1976										
21...	.1	--	13	125	--	109	--	--	1.4	.02

01476835 - CHESTER CREEK AT WESTTOWN SCHOOL, PA. (LAT 39 56 21 LONG 075 32 28)

DATE	DIS-SOLVED FLUO-RIDE (F) (MG/L)	TOTAL FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	TOTAL FILT-RABLE RESIDUE (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	TOTAL RESI-DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)
OCT , 1976										
28...	.1	--	17	141	--	130	--	--	2.9	.01

01476840 - GOOSE CREEK NEAR WEST CHESTER, PA. (LAT 39 56 01 LONG 075 33 31)

DATE	DIS-SOLVED FLUO-RIDE (F) (MG/L)	TOTAL FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	TOTAL FILT-RABLE RESIDUE (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	TOTAL RESI-DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)
OCT , 1976										
20...	.1	--	22	496	--	434	--	--	2.2	.54

01476848 - EAST BR CHESTER CREEK NR WEST CHESTER, PA (LAT 39 55 45 LONG 075 32 00)

DATE	DIS-SOLVED FLUO-RIDE (F) (MG/L)	TOTAL FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	TOTAL FILT-RABLE RESIDUE (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	TOTAL RESI-DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)
NOV , 1976										
08...	--	<.1	--	--	74	--	12	86	3.4	.02
22...	--	<.1	--	--	266	--	18	284	3.0	.09
FEB , 1977										
08...	--	<.1	--	--	404	--	44	448	2.6	.11
MAY										
02...	--	<.1	--	--	218	--	22	--	18	.18
12...	--	--	--	--	82	--	6	88	3.2	.04
AUG										
08...	--	.1	--	--	250	--	20	--	3.7	.59

Christina River Basin

01478120 - WHITE CLAY CREEK NEAR AVONDALE, PA. (LAT 39 49 39 LONG 075 46 52)

DATE	DIS-SOLVED FLUO-RIDE (F) (MG/L)	TOTAL FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	TOTAL FILT-RABLE RESIDUE (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	TOTAL RESI-DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)
OCT , 1976										
29...	.1	--	16	174	--	153	--	--	4.0	.01

01478190 - WHITE CLAY CREEK NEAR WICKERTON, PA. (LAT 39 47 44 LONG 075 49 27)

DATE	DIS-SOLVED FLUO-RIDE (F) (MG/L)	TOTAL FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	TOTAL FILT-RABLE RESIDUE (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	TOTAL RESI-DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)
NOV , 1976										
01...	.1	--	14	110	--	98	--	--	2.7	.05

01478220 - W BR WHITE CLAY CR NR CHESTERVILLE, PA. (LAT 39 45 56 LONG 075 47 47)

DATE	DIS-SOLVED FLUO-RIDE (F) (MG/L)	TOTAL FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	TOTAL FILT-RABLE RESIDUE (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	TOTAL RESI-DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)
NOV , 1976										
01...	.1	--	13	107	--	100	--	--	2.0	.01

01478240 - WHITE CLAY CREEK NEAR STRICKERSVILLE, PA. (LAT 39 44 54 LONG 075 46 12)

DATE	DIS-SOLVED FLUO-RIDE (F) (MG/L)	TOTAL FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	TOTAL FILT-RABLE RESIDUE (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	TOTAL RESI-DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)
NOV , 1976										
08...	--	<.1	--	--	80	--	10	90	3.2	.02
FEB , 1977										
08...	--	--	--	--	124	--	2	126	4.3	.06
MAY										
12...	--	--	--	--	0	--	2	102	2.5	.05
JUL										
26...	--	--	--	--	190	--	22	--	3.0	.70

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

Chester Creek Basin--Continued

01476830 - CHESTER CREEK NEAR MILLTOWN, PA. (LAT 39 58 21 LONG 075 32 57)

DATE	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ORTHO PHOSPHORUS (P) (MG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED CHROMIUM (CR) (UG/L)	DISSOLVED COBALT (CO) (UG/L)
OCT , 1976										
21...	1.4	.08	.45	.53	1.9	.37	.06	1	<10	1

01476835 - CHESTER CREEK AT WESTTOWN SCHOOL, PA. (LAT 39 56 21 LONG 075 32 28)

DATE	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ORTHO PHOSPHORUS (P) (MG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED CHROMIUM (CR) (UG/L)	DISSOLVED COBALT (CO) (UG/L)
OCT , 1976										
28...	2.9	.07	.28	.35	3.3	.35	.29	1	<10	0

01476840 - GOOSE CREEK NEAR WEST CHESTER, PA. (LAT 39 56 01 LONG 075 33 31)

DATE	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ORTHO PHOSPHORUS (P) (MG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED CHROMIUM (CR) (UG/L)	DISSOLVED COBALT (CO) (UG/L)
OCT , 1976										
20...	2.7	24	7.0	31	34	3.1	3.4	1	<10	0

01476848 - EAST BR CHESTER CREEK NR WEST CHESTER, PA (LAT 39 55 45 LONG 075 32 00)

DATE	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ORTHO PHOSPHORUS (P) (MG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED CHROMIUM (CR) (UG/L)	DISSOLVED COBALT (CO) (UG/L)
NOV , 1976										
08...	--	.09	--	--	--	.08	--	--	--	--
22...	--	7.4	--	--	--	2.6	--	--	--	--
FEB , 1977										
08...	--	>.03	--	--	--	5.3	--	--	--	--
MAY										
02...	--	19	--	--	--	1.3	--	--	--	--
12...	--	.06	--	--	--	.07	--	--	--	--
AUG										
08...	--	3.3	--	--	--	1.4	--	--	--	--

Christina River Basin

01478120 - WHITE CLAY CREEK NEAR AVONDALE, PA. (LAT 39 49 39 LONG 075 46 52)

DATE	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ORTHO PHOSPHORUS (P) (MG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED CHROMIUM (CR) (UG/L)	DISSOLVED COBALT (CO) (UG/L)
OCT , 1976										
29...	4.0	.04	.26	.30	4.3	.06	.04	1	<10	0

01478190 - WHITE CLAY CREEK NEAR WICKERTON, PA. (LAT 39 47 44 LONG 075 49 27)

DATE	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ORTHO PHOSPHORUS (P) (MG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED CHROMIUM (CR) (UG/L)	DISSOLVED COBALT (CO) (UG/L)
NOV , 1976										
01...	2.7	.09	.66	.75	3.5	.13	.06	1	<10	0

01478220 - W BR WHITE CLAY CR NR CHESTERVILLE, PA. (LAT 39 45 56 LONG 075 47 47)

DATE	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ORTHO PHOSPHORUS (P) (MG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED CHROMIUM (CR) (UG/L)	DISSOLVED COBALT (CO) (UG/L)
NOV , 1976										
01...	2.0	.08	.50	.58	2.6	.08	.05	1	<10	0

01478240 - WHITE CLAY CREEK NEAR STRICKERSVILLE, PA. (LAT 39 44 54 LONG 075 46 12)

DATE	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ORTHO PHOSPHORUS (P) (MG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED CHROMIUM (CR) (UG/L)	DISSOLVED COBALT (CO) (UG/L)
NOV , 1976										
08...	--	.09	--	--	--	.08	--	--	--	--
FEB , 1977										
08...	--	.21	--	--	--	.12	--	--	--	--
MAY										
12...	--	.06	--	--	--	.05	--	--	--	--
JUL										
26...	--	.20	--	--	--	.27	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)	PHENOLS (UG/L)
Chester Creek Basin--Continued									
01476830 - CHESTER CREEK NEAR MILLTOWN, PA. (LAT 39 58 21 LONG 075 32 57)									
OCT , 1976									
21...	0	--	230	2	120	2	10	--	--
01476835 - CHESTER CREEK AT WESTTOWN SCHOOL, PA. (LAT 39 56 21 LONG 075 32 28)									
OCT , 1976									
28...	10	--	110	5	100	1	10	--	--
01476840 - GOOSE CREEK NEAR WEST CHESTER, PA. (LAT 39 56 01 LONG 075 33 31)									
OCT , 1976									
20...	30	--	320	91	200	5	90	--	--
01476848 - EAST BR CHESTER CREEK NR WEST CHESTER, PA (LAT 39 55 45 LONG 075 32 00)									
NOV , 1976									
08...	--	150	--	--	--	--	--	.00	--
22...	--	1110	--	--	--	--	--	.11	--
FEB , 1977									
08...	--	810	--	--	--	--	--	1.3	--
MAY									
02...	--	520	--	--	--	--	--	<.01	--
12...	--	260	--	--	--	--	--	--	--
AUG									
08...	--	810	--	--	--	--	--	--	<10
Christina River Basin									
01478120 - WHITE CLAY CREEK NEAR AVONDALE, PA. (LAT 39 49 39 LONG 075 46 52)									
OCT , 1976									
29...	0	--	40	3	80	1	10	--	--
01478190 - WHITE CLAY CREEK NEAR WICKERTON, PA. (LAT 39 47 44 LONG 075 49 27)									
NOV , 1976									
01...	10	--	200	4	70	3	10	--	--
01478220 - W BR WHITE CLAY CR NR CHESTERVILLE, PA. (LAT 39 45 56 LONG 075 47 47)									
NOV , 1976									
01...	10	--	170	5	50	1	10	--	--
01478240 - WHITE CLAY CREEK NEAR STRICKERSVILLE, PA. (LAT 39 44 54 LONG 075 46 12)									
NOV , 1976									
08...	--	90	--	--	--	--	--	.00	--
FEB , 1977									
08...	--	0	--	--	--	--	--	--	--
MAY									
12...	--	110	--	--	--	--	--	--	--
JUL									
26...	--	1470	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	TIME	CODE FOR AGENCY COLLECTING SAMPLE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)
Christina River Basin--Continued										
01479780 - RED CLAY CREEK NEAR KENNETT SQUARE, PA. (LAT 39 50 13 LONG 075 43 33)										
OCT , 1976										
29...	1245	--	320	7.3	8.0	12.2	96	33	--	--
01479800 - RED CLAY CREEK NEAR FIVE POINT, PA. (LAT 39 49 11 LONG 075 41 29)										
OCT , 1976										
29...	1330	--	310	7.4	8.0	13.2	100	45	--	--
01479820 - RED CLAY CREEK NEAR KENNETT SQUARE, PA. (LAT 39 49 00 LONG 075 41 31)										
NOV , 1976										
08...	1300	9813	290	--	7.0	--	115	--	0	0
FEB , 1977										
08...	1200	9813	350	--	.0	--	112	--	0	0
MAY										
12...	1400	9813	290	--	15.0	--	99	--	0	0
JUL										
27...	0930	9813	410	7.6	17.5	9.0	114	--	--	0
01480430 - W BR BRANDYWINE CR NR COATESVILLE, PA. (LAT 40 00 17 LONG 075 49 31)										
OCT , 1976										
19...	1015	--	190	7.3	7.5	12.2	60	21	--	--
01480629 - BUCK RUN NEAR DOE RUN, PA. (LAT 39 55 44 LONG 075 49 47)										
OCT , 1976										
28...	1345	--	180	7.0	7.0	12.3	68	33	--	--
01480632 - DOE RUN NEAR SPRINGDALE, PA. (LAT 39 54 21 LONG 075 49 42)										
OCT , 1976										
28...	1415	--	145	6.9	8.0	12.2	48	18	--	--
01480640 - WEST BRANCH BRANDYWINE CREEK AT WAWASET, PA. (LAT 39 55 34 LONG 075 39 47)										
OCT , 1976										
19...	1130	--	260	7.3	9.5	11.8	74	29	--	--
NOV										
08...	1055	9813	200	--	8.0	--	0	--	0	0
FEB , 1977										
08...	0930	9813	230	--	.0	--	70	--	0	0
MAY										
12...	1400	9813	190	--	16.0	--	72	--	0	0
JUL										
27...	1300	9813	260	7.8	21.0	8.0	82	--	--	0
01480647 - E BR BRANDYWINE CR NR STRUBLE DAM, PA. (LAT 40 06 05 LONG 075 51 40)										
OCT , 1976										
19...	0830	--	200	6.9	8.5	11.0	63	25	--	--

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)
Christina River Basin--Continued										
01479780 - RED CLAY CREEK NEAR KENNETT SQUARE, PA. (LAT 39 50 13 LONG 075 43 33)										
OCT , 1976 29...	22	10	8.8	3.5	77	0	63	6.2	23	15
01479800 - RED CLAY CREEK NEAR FIVE POINT, PA. (LAT 39 49 11 LONG 075 41 29)										
OCT , 1976 29...	25	10	13	4.5	71	0	58	4.5	32	24
01479820 - RED CLAY CREEK NEAR KENNETT SQUARE, PA. (LAT 39 49 00 LONG 075 41 31)										
NOV , 1976 08...	24	13	--	--	--	--	66	--	18	23
FEB , 1977 08...	27	11	--	--	--	--	70	--	30	30
MAY 12...	23	10	--	--	--	--	52	--	25	20
JUL 27...	28	11	--	--	--	--	82	--	24	32
01480430 - W BR BRANDYWINE CR NR COATESVILLE, PA. (LAT 40 00 17 LONG 075 49 31)										
OCT , 1976 19...	14	6.0	6.4	2.3	47	0	39	3.8	17	13
01480629 - BUCK RUN NEAR DOE RUN, PA. (LAT 39 55 44 LONG 075 49 47)										
OCT , 1976 28...	16	6.7	8.3	2.6	42	0	34	6.7	18	17
01480632 - DOE RUN NEAR SPRINGDALE, PA. (LAT 39 54 21 LONG 075 49 42)										
OCT , 1976 28...	11	5.0	4.6	2.2	37	0	30	7.5	11	11
01480640 - WEST BRANCH BRANDYWINE CREEK AT WAWASET, PA. (LAT 39 55 34 LONG 075 39 47)										
OCT , 1976 19...	18	7.0	9.3	3.3	54	0	44	4.3	20	16
NOV 08...	18	13	--	--	--	--	46	--	10	18
FEB , 1977 08...	17	6.5	--	--	--	--	40	--	18	21
MAY 12...	17	7.0	--	--	--	--	38	--	18	19
JUL 27...	22	6.5	--	--	--	--	50	--	14	20
01480647 - E BR BRANDYWINE CR NR STRUBLE DAM, PA. (LAT 40 06 05 LONG 075 51 40)										
OCT , 1976 19...	15	6.2	5.8	3.4	46	0	38	9.3	11	11

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED FLUO-RIDE (F) (MG/L)	TOTAL FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	TOTAL FILT-RABLE RESIDUE (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	TOTAL RESI-DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)
Christina River Basin--Continued										
01479780 - RED CLAY CREEK NEAR KENNETT SQUARE, PA. (LAT 39 50 13 LONG 075 43 33)										
OCT , 1976 29...	.1	--	17	150	--	138	--	--	3.5	.03
01479800 - RED CLAY CREEK NEAR FIVE POINT, PA. (LAT 39 49 11 LONG 075 41 29)										
OCT , 1976 29...	.1	--	19	182	--	163	--	--	3.1	.02
01479820 - RED CLAY CREEK NEAR KENNETT SQUARE, PA. (LAT 39 49 00 LONG 075 41 31)										
NOV , 1976 08...	--	<.1	--	--	185	--	10	196	4.3	.05
FEB , 1977 08...	--	--	--	--	238	--	6	244	5.8	.09
MAY 12...	--	<.0	--	--	198	--	2	200	3.4	.08
JUL 27...	--	.1	--	--	200	--	<10	--	3.9	<.84
01480430 - W BR BRANDYWINE CR NR COATESVILLE, PA. (LAT 40 00 17 LONG 075 49 31)										
OCT , 1976 19...	.1	--	17	110	--	99	--	--	2.4	.01
01480629 - BUCK RUN NEAR DOE RUN, PA. (LAT 39 55 44 LONG 075 49 47)										
OCT , 1976 28...	.1	--	10	121	--	100	--	--	3.6	.02
01480632 - DOE RUN NEAR SPRINGDALE, PA. (LAT 39 54 21 LONG 075 49 42)										
OCT , 1976 28...	.1	--	11	83	--	74	--	--	3.7	.01
01480640 - WEST BRANCH BRANDYWINE CREEK AT WAWASET, PA. (LAT 39 55 34 LONG 075 39 47)										
OCT , 1976 19...	.2	--	12	122	--	113	--	--	2.9	.02
NOV 08...	--	.1	--	--	106	--	14	120	3.4	.04
FEB , 1977 08...	--	.1	--	--	146	--	4	150	3.8	.06
MAY 12...	--	.2	--	--	128	--	8	136	3.0	.06
JUL 27...	--	.2	--	--	148	--	20	--	2.8	.05
01480647 - E BR BRANDYWINE CR NR STRUBLE DAM, PA. (LAT 40 06 05 LONG 075 51 40)										
OCT , 1976 19...	.1	--	14	146	--	90	--	--	2.7	.03

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

Christina River Basin--Continued

DATE	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ORTHO PHOSPHORUS (P) (MG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED CHROMIUM (CR) (UG/L)	DISSOLVED COBALT (CO) (UG/L)
01479780 - RED CLAY CREEK NEAR KENNETT SQUARE, PA. (LAT 39 50 13 LONG 075 43 33)										
OCT , 1976 29...	3.5	.09	.26	.35	3.9	.09	.04	1	<10	0
01479800 - RED CLAY CREEK NEAR FIVE POINT, PA. (LAT 39 49 11 LONG 075 41 29)										
OCT , 1976 29...	3.1	.04	.31	.35	3.5	.05	.02	1	<10	0
01479820 - RED CLAY CREEK NEAR KENNETT SQUARE, PA. (LAT 39 49 00 LONG 075 41 31)										
NOV , 1976 08...	--	.15	--	--	--	.43	--	--	--	--
FEB , 1977 08...	--	.70	--	--	--	1.5	--	--	--	--
MAY 12...	--	.14	--	--	--	.45	--	--	--	--
JUL 27...	--	.12	--	--	--	E.66	--	--	--	--
01480430 - W BR BRANDYWINE CR NR COATESVILLE, PA. (LAT 40 00 17 LONG 075 49 31)										
OCT , 1976 19...	2.4	.15	.15	.30	2.7	.08	.06	0	<10	1
01480629 - BUCK RUN NEAR DOE RUN, PA. (LAT 39 55 44 LONG 075 49 47)										
OCT , 1976 28...	3.6	.21	.29	.50	4.1	.07	.02	1	<10	0
01480632 - DOE RUN NEAR SPRINGDALE, PA. (LAT 39 54 21 LONG 075 49 42)										
OCT , 1976 28...	3.7	.06	.24	.30	4.0	.05	.03	1	<10	0
01480640 - WEST BRANCH BRANDYWINE CREEK AT WAWASET, PA. (LAT 39 55 34 LONG 075 39 47)										
OCT , 1976 19...	2.9	.05	.23	.28	3.2	.10	.10	0	<10	1
NOV 08...	--	.12	--	--	--	.17	--	--	--	--
FEB , 1977 08...	--	.36	--	--	--	.23	--	--	--	--
MAY 12...	--	.06	--	--	--	.15	--	--	--	--
JUL 27...	--	.17	--	--	--	.21	--	--	--	--
01480647 - E BR BRANDYWINE CR NR STRUBLE DAM, PA. (LAT 40 06 05 LONG 075 51 40)										
OCT , 1976 19...	2.7	.13	.55	.68	3.4	.10	.02	1	<10	2

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)	PHENOLS (UG/L)
Christina River Basin--Continued									
01479780 - RED CLAY CREEK NEAR KENNETT SQUARE, PA. (LAT 39 50 13 LONG 075 43 33)									
OCT , 1976 29...	0	--	60	4	60	0	10	--	--
01479800 - RED CLAY CREEK NEAR FIVE POINT, PA. (LAT 39 49 11 LONG 075 41 29)									
OCT , 1976 29...	10	--	80	2	120	4	0	--	--
01479820 - RED CLAY CREEK NEAR KENNETT SQUARE, PA. (LAT 39 49 00 LONG 075 41 31)									
NOV , 1976 08...	--	200	--	--	--	--	--	.06	<10
FEB , 1977 08...	--	230	--	--	--	--	--	.26	--
MAY 12...	--	250	--	--	--	--	--	<.01	--
JUL 27...	--	380	--	--	--	--	--	<.01	--
01480430 - W BR BRANDYWINE CR NR COATESVILLE, PA. (LAT 40 00 17 LONG 075 49 31)									
OCT , 1976 19...	0	--	90	58	40	4	10	--	--
01480629 - BUCK RUN NEAR DOE RUN, PA. (LAT 39 55 44 LONG 075 49 47)									
OCT , 1976 28...	0	--	90	4	50	6	10	--	--
01480632 - DOE RUN NEAR SPRINGDALE, PA. (LAT 39 54 21 LONG 075 49 42)									
OCT , 1976 28...	0	--	30	2	60	0	10	--	--
01480640 - WEST BRANCH BRANDYWINE CREEK AT WAWASET, PA. (LAT 39 55 34 LONG 075 39 47)									
OCT , 1976 19...	0	--	80	70	30	11	10	--	--
NOV 08...	--	180	--	--	--	--	--	.00	--
FEB , 1977 08...	--	230	--	--	--	--	--	.11	--
MAY 12...	--	240	--	--	--	--	--	<.01	--
JUL 27...	--	890	--	--	--	--	--	<.01	--
01480647 - E BR BRANDYWINE CR NR STRUBLE DAM, PA. (LAT 40 06 05 LONG 075 51 40)									
OCT , 1976 19...	10	--	60	110	90	10	30	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

Christina River Basin--Continued

DATE	TIME	CODE FOR AGENCY COLLECTING SAMPLE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	MINERAL ACIDITY (METHYL ORANGE) AS CACO3 (MG/L)	ACIDITY CO2 AS CACO3 (MG/L)
01480648 - EAST BRANCH BRANDYWINE CREEK NEAR CUPOLA, PA. (LAT 40 05 41 LONG 075 51 14)										
OCT , 1976										
19...	0920	--	165	7.2	7.0	11.0	60	21	--	--
01480655 - EAST BR. BRANDYWINE CREEK NEAR GLENMOORE, PA. (LAT 40 04 25 LONG 075 49 01)										
OCT , 1976										
20...	1430	--	180	7.4	10.0	11.8	51	12	--	--
01480656 - INDIAN RUN NEAR SPRINGTON, PA. (LAT 40 04 30 LONG 075 46 57)										
OCT , 1976										
20...	1515	--	170	7.3	10.5	11.6	51	12	--	--
01480940 - EAST BR BRANDYWINE CR NR SCONNELLTOWN, PA. (LAT 39 56 20 LONG 075 38 13)										
NOV , 1976										
08...	1100	9813	240	--	6.0	11.7	108	--	0	0
FEB , 1977										
08...	1230	9813	290	--	.0	--	99	--	0	0
MAY										
02...	1015	9813	250	--	16.0	--	72	--	--	0
01480950 - EAST BRANCH BRANDYWINE CREEK AT WAWASET, PA. (LAT 39 55 31 LONG 075 38 55)										
OCT , 1976										
19...	--	--	285	7.8	10.0	12.0	97	34	--	--
01494900 - ELK CREEK AT ELKVIEW, PA. (LAT 39 48 45 LONG 075 54 04)										
NOV , 1976										
01...	1110	--	160	6.2	9.0	11.7	46	17	--	--
01494950 - ELK CREEK NEAR OXFORD, PA. (LAT 39 46 45 LONG 075 55 27)										
NOV , 1976										
01...	1230	--	140	6.9	10.0	11.3	65	36	--	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)
Christina River Basin--Continued										
01480648 - EAST BRANCH BRANDYWINE CREEK NEAR CUPOLA, PA. (LAT 40 05 41 LONG 075 51 14)										
OCT , 1976 19...	15	5.4	6.0	3.0	47	0	39	4.7	9.8	9.9
01480655 - EAST BR. BRANDYWINE CREEK NEAR GLENMOORE, PA. (LAT 40 04 25 LONG 075 49 01)										
OCT , 1976 20...	13	4.5	6.6	2.9	48	0	39	3.1	13	11
01480656 - INDIAN RUN NEAR SPRINGTON, PA. (LAT 40 04 30 LONG 075 46 57)										
OCT , 1976 20...	14	3.8	6.6	2.0	47	0	39	3.8	6.4	7.5
01480940 - EAST BR BRANDYWINE CR NR SCONNELLTOWN, PA. (LAT 39 56 20 LONG 075 38 13)										
NOV , 1976 08...	20	14	--	--	--	--	62	--	12	18
FEB , 1977 08...	25	6.5	--	--	--	--	72	--	26	26
MAY 02...	19	6.0	--	--	--	--	60	--	15	19
01480950 - EAST BRANCH BRANDYWINE CREEK AT WAWASET, PA. (LAT 39 55 31 LONG 075 38 55)										
OCT , 1976 19...	24	9.0	13	3.3	77	0	63	2.0	27	18
01494900 - ELK CREEK AT ELKVIEW, PA. (LAT 39 48 45 LONG 075 54 04)										
NOV , 1976 01...	10	5.2	6.4	4.3	36	0	30	36	13	12
01494950 - ELK CREEK NEAR OXFORD, PA. (LAT 39 46 45 LONG 075 55 27)										
NOV , 1976 01...	19	4.2	5.1	3.6	35	0	29	7.0	12	9.7

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED FLUO-RIDE (F) (MG/L)	TOTAL FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	TOTAL FILT-RABLE RESIDUE (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	TOTAL RESI-DUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)
Christina River Basin--Continued										
01480648 - EAST BRANCH BRANDYWINE CREEK NEAR CUPOLA, PA. (LAT 40 05 41 LONG 075 51 14)										
OCT , 1976										
19...	.1	--	18	106	--	91	--	--	2.7	.02
01480655 - EAST BR. BRANDYWINE CREEK NEAR GLENMOORE, PA. (LAT 40 04 25 LONG 075 49 01)										
OCT , 1976										
20...	.1	--	19	100	--	94	--	--	2.4	.01
01480656 - INDIAN RUN NEAR SPRINGTON, PA. (LAT 40 04 30 LONG 075 46 57)										
OCT , 1976										
20...	.1	--	25	114	--	89	--	--	2.4	.01
01480940 - EAST BR BRANDYWINE CR NR SCONNELLTOWN, PA. (LAT 39 56 20 LONG 075 38 13)										
NOV , 1976										
08...	--	<.1	--	--	136	--	14	150	2.8	.04
FEB , 1977										
08...	--	.1	--	--	190	--	6	196	2.9	.14
MAY										
02...	--	<.1	--	--	140	--	<5	--	2.3	.09
01480950 - EAST BRANCH BRANDYWINE CREEK AT WAWASET, PA. (LAT 39 5[illegible] [illegible]1 LONG 075 38 55)										
OCT , 1976										
19...	.1	--	13	157	--	146	--	--	1.9	.05
01494900 - ELK CREEK AT ELKVIEW, PA. (LAT 39 48 45 LONG 075 54 04)										
NOV , 1976										
01...	.1	--	12	91	--	81	--	--	3.3	.03
01494950 - ELK CREEK NEAR OXFORD, PA. (LAT 39 46 45 LONG 075 55 27)										
NOV , 1976										
01...	.1	--	12	83	--	83	--	--	3.0	.01

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER-QUALITY DATA, WATER YEAR OCTOBFR 1976 TO SEPTEMBER 1977

Christina River Basin--Continued

DATE	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL ORGANIC NITRO-GEN (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL ORTHO PHOS-PHORUS (P) (MG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)
01480648 - EAST BRANCH BRANDYWINE CREEK NEAR CUPOLA, PA. (LAT 40 05 41 LONG 075 51 14)										
OCT , 1976 19...	2.7	.14	.39	.53	3.2	.06	.03	1	<10	2
01480655 - EAST BR. BRANDYWINE CREEK NEAR GLENMOORE, PA. (LAT 40 04 25 LONG 075 49 01)										
OCT , 1976 20...	2.4	.07	.31	.38	2.8	.35	.30	1	<10	1
01480656 - INDIAN RUN NEAR SPRINGTON, PA. (LAT 40 04 30 LONG 075 46 57)										
OCT , 1976 20...	2.4	.06	.32	.38	2.8	.19	.04	1	<10	1
01480940 - EAST BR BRANDYWINE CR NR SCONNELLTOWN, PA. (LAT 39 56 20 LONG 075 38 13)										
NOV , 1976 08...	--	.23	--	--	--	.37	--	--	--	--
FEB , 1977 08...	--	1.4	--	--	--	.76	--	--	--	--
MAY 02...	--	.34	--	--	--	.13	--	--	--	--
01480950 - EAST BRANCH BRANDYWINE CREEK AT WAWASET, PA. (LAT 39 55 31 LONG 075 38 55)										
OCT , 1976 19...	1.9	.19	.39	.58	2.5	.43	.44	1	<10	1
01494900 - ELK CREEK AT ELKVIEW, PA. (LAT 39 48 45 LONG 075 54 04)										
NOV , 1976 01...	3.3	.05	.35	.40	3.7	.10	.06	2	<10	0
01494950 - ELK CREEK NEAR OXFORD, PA. (LAT 39 46 45 LONG 075 55 27)										
NOV , 1976 01...	3.0	.07	.38	.45	3.5	.09	.08	1	<10	0

WATER-QUALITY DATA, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)	PHENOLS (UG/L)
Christina River Basin--Continued									
01480648 - EAST BRANCH BRANDYWINE CREEK NEAR CUPOLA, PA. (LAT 40 05 41 LONG 075 51 14)									
OCT , 1976 19...	0	--	60	53	70	1	20	--	--
01480655 - EAST BR. BRANDYWINE CREEK NEAR GLENMOORE, PA. (LAT 40 04 25 LONG 075 49 01)									
OCT , 1976 20...	0	--	100	15	50	2	20	--	--
01480656 - INDIAN RUN NEAR SPRINGTON, PA. (LAT 40 04 30 LONG 075 46 57)									
OCT , 1976 20...	10	--	100	8	50	2	20	--	--
01480940 - EAST BR BRANDYWINE CR NR SCONNELLTOWN, PA. (LAT 39 56 20 LONG 075 38 13)									
NOV , 1976 08...	--	320	--	--	--	--	--	.00	--
FEB , 1977 08...	--	200	--	--	--	--	--	.30	--
MAY 02...	--	200	--	--	--	--	--	<.01	--
01480950 - EAST BRANCH BRANDYWINE CREEK AT WAWASET, PA. (LAT 39 55 31 LONG 075 38 55)									
OCT , 1976 19...	10	--	90	69	50	14	20	--	--
01494900 - ELK CREEK AT ELKVIEW, PA. (LAT 39 48 45 LONG 075 54 04)									
NOV , 1976 01...	10	--	150	5	70	5	10	--	--
01494950 - ELK CREEK NEAR OXFORD, PA. (LAT 39 46 45 LONG 075 55 27)									
NOV , 1976 01...	10	--	120	3	80	4	10	--	--

BERKS COUNTY

402615075530501. Local number, BE 623.

LOCATION.--Lat 40°26'15", long 75°53'05", Hydrologic Unit 02040203, at Wesner Road, Blandon.
Owner: Maiden Creek Township Water Authority.
AQUIFER.--Leithsville Formation of Middle Cambrian age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 8 in (20 cm), depth 385 ft (117 m), casing information not available.
DATUM.--Altitude of land-surface datum is 430 ft (131 m). Measuring point: Top of casing, 1.30 ft (39 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--January 1975 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 118.55 ft (36.134 m) below land-surface datum, Apr. 15, 1975; lowest, 137.06 ft (41.776 m) below land-surface datum, Sep. 24, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	134.37	133.82	135.08	---	136.66	135.99	127.03	125.45	129.55	132.69	134.85	136.30
10	134.41	133.95	134.86	135.80	136.73	135.25	125.05	126.04	130.20	133.17	135.17	136.54
15	134.51	134.18	134.83	135.90	136.79	134.11	124.12	126.77	130.76	133.43	135.40	136.82
20	134.62	134.39	134.91	136.11	136.74	132.60	124.23	127.48	131.20	133.72	135.62	136.97
25	134.23	134.67	135.23	136.15	136.66	130.13	124.40	128.05	131.72	134.07	135.85	137.03
EOM	133.88	134.93	135.43	136.35	136.50	128.32	125.14	128.93	132.23	134.55	136.08	137.06

WTR YR 1977 HIGH 124.00 APR 16 AND OTHERS LOW 137.06 SEP 24

BUCKS COUNTY

402643075150501. Local number, BK 929.

LOCATION.--Lat 40°26'43", long 75°15'05", Hydrologic Unit 02040105, at Nockamixon State Park.
Owner: U.S. Geological Survey.
AQUIFER.--Shale of Brunswick Formation of Upper Triassic age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 116 ft (35.4 m), cased to 27 ft (8.2 m), open hole.
DATUM.--Altitude of land-surface datum is 460 ft (140 m). Measuring point: Top of casing, 1.05 ft (32 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--November 1967 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 44.21 ft (13.475 m) below land-surface datum, April 3, 1975; lowest, 59.75 ft (18.212 m) below land-surface datum, Nov. 26, 1968.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	53.55	52.67	53.12	51.66	51.89	49.51	46.83	46.49	48.21	50.23	51.38	51.55
10	53.51	52.31	53.07	51.52	52.21	49.02	46.99	46.37	48.68	50.74	51.32	51.76
15	53.22	52.28	52.10	51.47	51.96	48.40	46.79	46.83	49.08	50.66	51.44	52.43
20	53.48	52.20	51.51	51.46	51.40	48.02	47.42	47.30	49.32	50.58	51.23	52.25
25	53.09	52.75	51.78	51.37	50.87	47.44	46.96	47.52	49.65	50.45	51.59	52.37
EOM	52.73	53.09	51.38	51.66	50.52	47.32	47.25	48.09	49.93	51.05	51.60	52.48

WTR YR 1977 HIGH 46.31 MAY 9 LOW 53.70 OCT 19

410123075425401. Local number, CB 104

LOCATION.--Lat 41°01'23", long 75°42'54", Hydrologic Unit 02040106, at Hickory Run State Park.
Owner: U.S. Geological Survey.
AQUIFER.--Shale of Lower Member of Mauch Chunk Formation of Upper Mississippian age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 125 ft (38.1 m), cased to 20 ft (6.1 m), open hole.
DATUM.--Altitude of land-surface datum is 1,290 ft (393 m). Measuring point: Top of casing, 3.00 ft (91 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--September 1969 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 21.10 ft (6.431 m) below land-surface datum Dec. 28, 1974; lowest, 83.51 ft (25.454 m) below land-surface datum, Nov. 8, 1972.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	59.09	33.61	58.78	---	71.07	29.85	27.45	34.90	55.86	70.67	76.23	80.52
10	39.78	39.00	46.05	---	72.41	27.06	29.10	40.01	59.26	71.95	76.92	81.16
15	28.58	43.79	41.45	---	73.48	26.65	34.64	40.15	61.99	72.75	---	81.77
20	33.42	47.48	44.29	---	72.92	30.19	40.85	43.89	64.37	73.62	---	82.25
25	29.56	51.50	47.64	67.44	71.32	24.32	37.72	47.57	66.66	74.49	79.08	82.11
EOM	31.12	55.30	---	69.51	48.31	28.62	30.73	52.21	68.77	75.41	79.80	---

WTR YR 1977 HIGH 24.32 MAR 25 AND OTHERS LOW 82.25 SEP 20

CHESTER COUNTY

395450075485401. Local number, CH 10

LOCATION.--Lat 39°54'50", long 75°48'54", Hydrologic Unit 02040205, at Route 841 and Route 82, Doe Run.
Owner: Robert J. Kleberg, Jr.
AQUIFER.--Cockeysville Marble of Paleozoic age.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 6 in (15 cm), depth 34 ft (10.4 m), casing information not available.
DATUM.--Altitude of land-surface datum is 300 ft (91 m). Measuring point: Top of casing, 1.00 ft (30 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--August 1951 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.28 ft (2.524 m) below land-surface datum, March 30, 1958; lowest, 16.22 ft (4.944 m) below land-surface datum, Nov. 3, 1963.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	14.03	12.66	13.85	14.01	14.31	13.50	10.99	12.88	14.00	13.53	14.42	14.56
10	13.69	12.95	13.36	14.08	14.31	13.35	10.65	13.13	14.09	13.76	14.45	14.66
15	13.72	13.26	13.48	13.85	13.83	12.01	11.35	13.38	14.17	13.97	14.47	14.74
20	13.93	13.44	13.60	14.07	14.09	12.11	11.97	13.58	14.28	14.11	14.48	14.80
25	13.04	13.59	13.75	14.19	14.01	11.02	12.31	13.71	14.33	14.28	14.44	14.83
EOM	12.90	13.76	13.90	14.25	13.51	11.75	12.61	13.90	13.27	14.35	14.55	14.78

WTR YR 1977 HIGH 10.14 APR 6 LOW 14.86 SEP 24

DELAWARE COUNTY

395040075341801. Local number, DE 3.

LOCATION.--Lat 39°50'40", long 75°34'18", Hydrologic Unit 02040205, at Birmingham Township.
Owner: Mrs. Hope W. Ebert
AQUIFER.--Gneiss of Wissahickon Formation (age uncertain, Lower Paleozoic to Precambrian).
WELL CHARACTERISTICS.--Dug unused water-table well, diameter *42 in (107 cm)*, *depth 22 ft (6.7 m)*, cased with stone.
DATUM.--Altitude of land-surface datum is 260 ft (79 m). Measuring point: Top of concrete base, 1.8 ft (55 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--June 1951 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.90 ft (2.408 m) below land-surface datum, Aug. 22, 1955; lowest measured, dry many times since 1964.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 4	18.09	DEC 6	17.32	FEB 7	16.65	APR 4	12.19	JUN 6	15.08	AUG 1	16.30
11	18.24	13	17.20	14	16.64	11	11.51	13	15.29	8	16.50
18	18.34	20	17.07	21	16.65	18	12.22	20	15.46	15	16.70
25	18.35	27	16.94	28	16.29	25	12.92	27	15.64	22	16.85
NOV 1	18.19	JAN 3	16.83	MAR 7	15.75	MAY 2	13.51	JUL 4	15.77	29	17.02
8	17.93	10	16.69	14	14.87	9	13.92	11	15.89	SEP 5	17.17
15	17.73	17	16.66	21	13.74	16	14.32	18	16.01	12	17.33
22	17.55	24	16.62	28	11.69	23	14.61	25	16.14	19	17.49
29	17.40	31	16.62	--	-----	30	14.87	--	-----	26	17.65

WTR YR 1977 HIGH 11.51 APR 11 LOW 18.35 OCT 25

LACKAWANNA COUNTY

411310075375501. Local number, LK 4.

LOCATION.--Lat 41°13'10", long 75°37'55", Hydrologic Unit 02040106, at Lackawanna State Forest.
Owner: Commonwealth of Pennsylvania.
AQUIFER.--Shale and sandstone of Catskill Formation of Upper Devonian age.
WELL CHARACTERISTICS.--Dug unused water-table well, diameter 36 in (91 cm), depth 10 ft (3.0 m).
DATUM.--Altitude of land-surface datum is 1,910 ft (582 m). Measuring point: Wooden cover, 0.4 ft (12 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--June 1953 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.40 ft (43 cm) below land-surface datum, June 29, 1973; lowest measured, dry, October, November 1964.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	3.42	DEC 3	3.85	FEB 14	4.00	APR 8	3.47	JUN 3	3.90	AUG 5	4.05
8	3.32	10	3.50	18	4.18	22	3.81	12	3.45	12	4.18
15	3.38	17	3.65	28	2.05	29	3.41	24	3.56	19	4.07
22	2.96	27	3.80	MAR 4	2.32	MAY 6	3.42	JUL 8	3.36	26	4.38
NOV 5	3.48	JAN 7	3.95	11	3.45	13	3.22	15	3.77	SEP 2	4.32
12	2.61	14	4.02	21	3.63	20	3.52	22	3.60	16	5.00
--	----	28	4.10	28	3.06	27	3.76	29	4.00	22	3.92
--	----	--	----	--	----	--	----	--	----	30	3.51

WTR YR 1977 HIGH 2.05 FEB 28 LOW 5.00 SEP 16

LEBANON COUNTY

402207076180801. Local number, LB 372.

LOCATION.--Lat 40°22'07", long 76°18'08", Hydrologic Unit 02040203, at Myerstown.
Owner: Kohl Brothers, Inc.
AQUIFER.--Dolomite of Ontelaunee Formation of Middle Ordovician age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in (15 cm), depth 80 ft (24.4 m), casing information not available, open hole.
DATUM.--Altitude of land-surface datum is 444 ft (135 m). Measuring point: Top of casing, 3.5 ft (1.07 m) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--July 1973 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.02 ft (1.225 m) below land-surface datum, Jan. 27, 1976; lowest, 10.51 ft (3.203 m) below land-surface datum, Nov. 27, 1974.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	7.65	6.73	8.07	8.76	9.58	6.71	6.24	7.71	8.70	8.79	8.80	9.37
10	6.04	7.11	7.68	8.87	9.68	7.64	6.67	7.93	8.21	8.18	8.96	9.60
15	6.98	7.32	8.00	8.96	8.81	7.16	7.19	8.09	8.57	7.86	8.88	9.75
20	7.36	7.51	8.14	9.13	9.10	7.57	7.51	8.32	8.21	8.14	9.10	9.77
25	6.50	7.72	8.36	9.29	7.70	6.68	7.27	8.44	8.42	8.29	9.20	9.22
EOM	6.62	7.86	8.56	9.45	7.92	7.32	7.50	8.59	8.68	8.66	9.41	9.59

WTR YR 1977 HIGH 5.74 OCT 21 LOW 9.92 SEP 22

LEHIGH COUNTY

403429075392401. Local number, LE 644.

LOCATION.--Lat 40°34'29", long 75°39'24", Hydrologic Unit 02040106, at Haafsville.
Owner: Charles J. Haaf.
AQUIFER.--Beekmantown Group of Middle Ordovician age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 10 in (25 cm), depth 184 ft (56.1 m), cased to 63 ft (19.2 m), open hole.
DATUM.--Altitude of land-surface datum is 470 ft (143 m). Measuring point: Top of plywood cover, 1.45 ft (44 cm) above land-surface datum.
REMARKS.--Water-quality records for 1973-75 are available in files of district office.
PERIOD OF RECORD.--January 1971 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 36.65 ft (11.170 m) below land-surface datum, June 27, 1972; lowest, 93.42 ft (28.474 m) below land-surface datum, Feb. 6, 1971.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	72.57	68.74	71.32	72.33	75.44	69.39	56.13	54.35	58.34	63.16	65.81	65.50
10	72.20	68.81	70.80	72.37	75.79	67.21	52.39	54.25	59.55	63.98	66.33	66.41
15	71.75	69.01	70.60	72.97	75.28	65.56	52.60	54.55	60.18	64.93	64.83	67.76
20	72.02	69.44	70.67	73.71	75.05	63.98	53.18	55.64	60.99	65.20	---	68.13
25	70.84	70.34	70.94	74.21	74.25	58.90	53.22	56.35	61.79	65.18	64.82	68.27
EOM	69.19	70.86	71.34	74.68	70.85	57.03	54.13	57.55	62.69	65.85	65.25	68.40

WTR YR 1977 HIGH 52.15 APR 11 LOW 75.79 FEB 10

403226075343001. Local number, LE 860.

LOCATION.--Lat 40°32'26", long 75°34'30", Hydrologic Unit 02040106, at Lower Macungie Township.
Owner: Paul Knepper.
AQUIFER.--Dolomite of Allentown Formation of Upper Cambrian age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 100 ft (30.5 m), cased to 58 ft (17.7 m), open hole.
DATUM.--Altitude of land-surface datum is 358 ft (109 m). Measuring point: Top of casing, 2.00 ft (61 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--June 1969 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.28 ft (39 cm) below land-surface datum, June 27, 1972; lowest, 10.46 ft (3.188 m) below land-surface datum, July 23, 1969.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	6.29	5.50	6.38	6.65	7.50	4.64	3.28	3.97	5.05	5.69	5.22	5.72
10	5.67	5.66	5.77	6.80	7.63	4.74	2.94	4.07	5.10	5.73	5.48	5.91
15	5.95	5.80	5.93	6.91	7.18	4.03	3.28	4.31	5.28	5.50	4.88	6.09
20	6.16	5.95	6.10	7.00	7.41	4.30	3.57	4.50	5.36	5.60	5.15	6.15
25	5.59	6.07	6.28	7.16	5.99	3.13	3.67	4.68	5.46	5.64	5.27	6.12
EOM	5.53	6.21	6.50	7.32	5.02	3.61	3.89	4.90	5.55	5.84	5.54	---

WTR YR 1977 HIGH 2.59 APR 6 LOW 7.65 FEB 11

MONROE COUNTY

411223075234901. Local number, MO 190.

LOCATION.--Lat 41°12'23", long 75°23'49", Hydrologic Unit 02040106, at Tobyhanna State Park.
Owner: U.S. Geological Survey.
AQUIFER.--Sandstone of Catskill Formation of Upper Devonian age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 98 ft (29.9 m), cased to 59 ft (17.9 m), open hole.
DATUM.--Altitude of land-surface datum is 1,960 ft (597 m). Measuring point: Top of plywood cover, 2.57 ft (78 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--October 1967 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.09 ft (2.161 m) below land-surface datum, April 14, 1970; lowest, 15.15 ft (4.617 m) below land-surface datum, Oct. 14, 1970.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	11.06	8.85	10.97	11.26	12.72	9.57	7.57	8.80	11.49	12.34	13.80	---
10	9.53	9.27	9.81	11.51	12.89	8.73	8.33	8.79	11.27	12.55	14.04	---
15	8.96	9.67	9.92	11.79	12.85	8.08	8.97	9.14	10.98	12.83	14.22	---
20	9.37	10.03	10.20	12.05	12.97	8.78	9.54	9.93	11.25	13.16	14.26	---
25	8.28	10.40	10.50	12.24	12.58	8.07	7.94	10.30	11.56	13.36	14.43	14.57
EOM	8.63	10.66	10.90	12.52	11.36	7.91	8.46	11.22	11.97	13.74	14.71	13.71

WTR YR 1977 HIGH 7.57 APR 5 LOW 14.80 SEP 24

400808075210401. Local number, MG 225.

LOCATION.--Lat 40°08'08", long 75°21'04", Hydrologic Unit 02040203, at Willow and Locust Streets, Norristown. Owner: Norristown State Hospital.
AQUIFER.--Sandstone of Stockton Formation of Upper Triassic age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 12 in (30 cm), depth 300 ft (91.4 m), casing information not available.
DATUM.--Altitude of land-surface datum is 165 ft (50.3 m). Measuring point: Top of casing, 0.75 ft (23 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--September 1956 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 12.62 ft (3.846 m) below land-surface datum, July 15, 1975: lowest, 60.25 ft (18.364 m) below land-surface datum, Nov. 5, 6, 1963.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	29.98	27.06	29.93	26.54	38.04	33.77	20.35	18.32	22.20	25.02	36.11	29.79
10	28.95	27.44	29.46	31.57	38.43	32.10	18.94	18.68	22.64	25.45	38.56	29.76
15	28.41	27.89	29.32	33.86	37.91	28.06	19.78	19.47	23.11	25.79	39.59	30.04
20	28.65	28.41	28.50	35.41	37.90	24.83	20.90	20.23	23.43	25.98	33.26	29.94
25	27.90	28.96	27.65	36.42	37.32	20.96	21.53	20.83	23.85	30.00	31.09	29.86
EOM	27.52	29.49	26.67	37.45	34.85	20.86	18.27	21.67	24.46	36.11	30.20	---

WTR YR 1977 HIGH 18.23 MAY 2 LOW 39.78 AUG 17

MONTGOMERY COUNTY

401310075181702. Local number, MG 884.

LOCATION.--Lat 40°13'10", long 75°18'17", Hydrologic Unit 02040203, at Upper Gwyned Township, near West Point. Owner: Merck, Sharp, and Dohme, Inc.
AQUIFER.--Shale of Brunswick Formation of Upper Triassic age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 12 in (30 cm) to 10 in (25 cm), depth 600 ft (183 m), casing information not available.
DATUM.--Altitude of land-surface datum is 351 ft (107 m). Measuring point: Top of casing, 1.30 ft (40 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--March 1966 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 38.40 ft (11.704 m) below land-surface datum, June 30, 1972; lowest, 93.17 ft (28.398 m) below land-surface datum, Oct. 20, 1966.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	77.63	77.65	78.63	79.17	80.00	79.89	74.95	71.83	72.08	73.48	76.76	77.80
10	77.64	77.29	78.90	79.49	80.40	79.30	73.87	71.66	72.38	73.93	77.14	78.12
15	77.55	77.49	79.01	79.54	80.72	78.54	72.94	71.66	72.60	74.23	77.49	78.67
20	77.67	77.67	79.13	79.62	80.71	77.70	72.44	71.64	72.81	74.77	77.53	79.18
25	77.73	77.65	79.23	79.18	80.57	76.77	72.18	71.61	72.87	75.37	77.58	79.45
EOM	77.77	78.16	79.24	79.54	80.42	75.81	72.14	71.86	73.19	76.15	77.66	79.48

WTR YR 1977 HIGH 71.55 MAY 13 LOW 80.76 FEB 21

NORTHAMPTON COUNTY

403618075203801. Local number, NP 85.

LOCATION.--Lat 40°36'18", long 75°20'38", Hydrologic Unit 02040106, at Bethlehem. Owner: City of Bethlehem.
AQUIFER.--Dolomite of Tomstown Formation of Lower Cambrian age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 12 in (30 cm), depth 344 ft (105 m), cased to 73 ft (22.3 m), open hole.
DATUM.--Altitude of land-surface datum is 230 ft (70.1 m). Measuring point: Top of casing, 1.00 ft (30 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--July 1969 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.33 ft (10 cm) below land-surface datum, Sep. 24, 1975; lowest measured, 3.99 ft (1.216 m) below land-surface datum, Feb. 19, 1971.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 27	3.11	DEC 21	3.58	FEB 2	3.63	APR 25	2.85	JUN 20	3.34	AUG 24	3.45
NOV 22	3.56	JAN 20	3.65	MAR 21	3.00	MAY 24	3.43	JUL 25	3.20	SEP 26	3.08

WTR YR 1977 HIGH 2.85 APR 25 LOW 3.65 JAN 20

PHILADELPHIA COUNTY

395342075102101. Local number, PH 12.

LOCATION.--Lat 39°53'42", long 75°10'21", Hydrologic Unit 02040202, at Barracks and East Fourth Streets, Philadelphia. Owner: U.S. Naval Base.
AQUIFER.--Sand of Raritan Formation ("middle aquifer") of Upper Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 8 in (20 cm), depth 110 ft (34 m), cased to 94 ft (28.7 m), screened 94-104 ft (28.6-31.7 m).
DATUM.--Altitude of land-surface datum is 10.00 ft (3.05 m). Measuring point: Top of casing, 1.80 ft (55 cm) above land-surface datum.
REMARKS.--Mean daily fluctuation caused by tidal loading, 0.20 ft (6 cm).
PERIOD OF RECORD.--January 1952 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 16.55 ft (5.044 m) below land-surface datum, Nov. 8, 1972; lowest, 39.60 ft (12.070 m) below land-surface datum, July 20, 1955.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	18.19	18.52	18.86	19.20	19.25	18.74	18.03	18.15	18.49	17.60	17.82	17.26
10	18.17	18.65	18.90	18.77	19.40	18.99	18.70	18.35	18.44	17.73	17.94	17.09
15	18.07	18.79	18.76	18.71	19.08	18.61	18.70	18.70	18.47	17.57	17.99	17.60
20	18.12	18.56	18.60	18.92	18.64	18.72	18.74	18.65	18.18	17.43	17.73	17.22
25	18.13	19.07	19.15	18.90	18.76	18.86	18.18	18.68	18.07	17.65	17.50	17.19
EOM	18.34	19.13	19.07	19.29	18.92	18.44	18.59	18.75	17.46	17.81	17.52	17.38

WTR YR 1977 HIGH 16.89 SEP 27 LOW 19.76 FEB 8

404708076070701. Local number, SC 296.

LOCATION.--Lat 40°47'08", long 76°07'07", Hydrologic Unit 02040203, at Locust Lake State Park. Owner: U.S. Geological Survey.
AQUIFER.--Mauch Chunk Formation of Lower Pennsylvanian age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 242 ft (73.8 m), cased to 40 ft (12.2 m), open hole.
DATUM.--Altitude of land-surface datum is 1,290 ft (393 m). Measuring point: Top of casing, 2.30 ft (70 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--July 1975 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 35.84 ft (10.924 m) below land-surface datum, Mar. 6, 1977: lowest, 54.60 ft (16.642 m) below land-surface datum, Sep. 16, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	46.41	43.86	51.25	50.79	52.70	36.70	40.74	45.10	50.38	51.86	53.25	54.13
10	38.66	46.47	48.06	51.30	52.91	39.06	40.87	46.64	50.05	51.72	53.14	54.33
15	40.25	48.52	47.50	51.67	50.33	36.77	43.73	---	50.86	51.86	53.49	54.59
20	44.24	49.49	48.31	51.99	51.11	39.33	46.05	---	51.08	52.05	53.49	54.13
25	40.09	50.16	49.29	52.11	46.00	37.30	45.19	49.11	51.41	52.61	53.65	51.97
EOM	41.95	50.71	50.16	52.45	44.49	41.40	44.43	49.83	51.38	53.05	53.94	50.77

WTR YR 1977 HIGH 35.84 MAR 6 LOW 54.60 SEP 16

WAYNE COUNTY

414333075153201. Local number, WN 64.

LOCATION.--Lat 41°43'33", long 75°15'32", Hydrologic Unit 02040103, at State Game Land Number 159. Owner: U.S. Geological Survey.
AQUIFER.--Sand and gravel of Glacial Outwash of Quarternary age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 52 ft (15.8 m), cased to 52 ft (15.8 m), open end.
DATUM.--Altitude of land-surface datum is 1,330 ft (405 m). Measuring point: Top of plywood cover, 2.57 ft (78 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--October 1967 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.88 ft (2.401 m) below land-surface datum, Nov. 17, 1972; lowest, 32.33 ft (9.854 m) below land-surface datum, Oct. 7, 1968.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1976 TO SEPTEMBER 1977
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	27.68	23.68	27.04	27.92	29.58	---	24.58	25.28	28.57	30.05	30.85	31.12
10	26.39	24.22	26.50	28.17	29.79	---	25.48	24.45	28.83	30.12	30.87	31.21
15	25.10	25.10	26.14	28.44	29.87	---	26.14	25.03	29.11	30.27	30.95	31.28
20	25.18	25.76	26.44	28.75	29.94	---	26.81	26.15	29.29	30.42	30.93	31.00
25	24.10	26.38	26.95	29.02	29.70	26.43	25.75	27.17	29.60	30.64	30.95	30.53
EOM	23.86	26.77	27.46	29.33	---	25.31	25.16	28.08	29.82	30.74	31.05	28.92

WTR YR 1977 HIGH 23.68 NOV 4 LOW 31.28 SEP 15 AND OTHERS

INDEX

Page

- ABINGTON, PENNYPACK CREEK AT WELSH ROAD NEAR 137
- ACRE-FOOT, DEFINITION OF 6
- ALDENVILLE, WEST BRANCH LACKAWAXEN RIVER NEAR 309,313
- ALGAE, DEFINITION OF 6
- ALGAL GROWTH POTENTIAL, DEFINITION OF 6
- ALLENTOWN, CEDAR CREEK AT 318
  - JORDAN CREEK AT 80
  - LEHIGH RIVER AT 318
  - LITTLE LEHIGH CREEK AT 318
  - LITTLE LEHIGH CREEK NEAR 77
- AMBLER, PINE RUN TRIBUTARY NEAR 214
  - WISSAHICKON CREEK AT 215
- ANALOMINK, BRODHEAD CREEK NEAR 42, 320
- ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS 320
- AQUASHICOLA CREEK AT PALMERTON 72
- AQUIFER, DEFINITION OF 6
- ARCOLA, SKIPPACK CREEK AT 330
- ARTESIAN, DEFINITION OF 6
- ARTIFICIAL SUBSTRATE, DEFINITION OF 9
- ASH MASS, DEFINITION OF 6
- AVONDALE, WHITE CLAY CREEK NEAR 340

- BACTERIA, DEFINITION OF 6
- BARRYVILLE, DELAWARE RIVER ABOVE LACKAWAXEN RIVER NEAR 25
- BATH, EAST BRANCH MONOCACY CREEK NEAR 314
- BED MATERIAL, DEFINITION OF 6
- BELTZVILLE LAKE 98
- BELVIDERE, NJ, DELAWARE RIVER AT 45
- BERNE, SCHUYLKILL RIVER AT 169
- BERNVILLE, LITTLE NORTHKILL CREEK NEAR 315
  - NORTHKILL CREEK AT 185,311,315
  - TULPEHOCKEN CREEK AT 183
    - NEAR 182
- BETHLEHEM, LEHIGH RIVER AT 82,85
  - MONOCACY CREEK AT 84,318,323
    - NEAR 323
  - SAUCON CREEK AT 87
- BIG ELK CREEK AT LEWISVILLE 318
- BIOCHEMICAL OXYGEN DEMAND, DEFINITION OF 6
- BIOMASS, DEFINITION OF 6
- BLACK CREEK AT WEATHERLY 320
- BLAKESLEE, TOBYHANNA CREEK NEAR 61
- BLUE-GREEN ALGAE, DEFINITION OF 8
- BOTTOM MATERIAL, DEFINITION OF 6
- BOWERS, SACONY CREEK ABOVE 179
- BRANDYWINE CREEK, AT CHADDS FORD 278
  - AT WILMINGTON, DE 290
  - EAST BRANCH, AT GLENMOORE 350
    - AT WAWASET 350
    - BELOW DOWNINGTOWN 270
    - NEAR CUPOLA 350
    - NEAR DOWNINGTOWN 267
    - NEAR GLENMOORE 350
    - NEAR SCONNELLTOWN 350
    - NEAR STRUBLE DAM 345
  - WEST BRANCH, AT COATESVILLE 254
    - AT MODENA 255
    - AT WAWASET 345
    - NEAR COATESVILLE 345
    - NEAR HONEY BROOK 253
- BRISTOL, PA-BURLINGTON, NJ BRIDGE, DELAWARE RIVER AT 120
- BRODHEAD CREEK, AT MINISINK HILLS 43
  - NEAR ANALOMINK 42,320
- BUCK RUN NEAR DOE RUN 345
- BUCKTOWN, PIGEON CREEK NEAR 326
- BUCKWHA CREEK AT LITTLE GAP 310,314
- BUSH KILL AT SHOEMAKERS 37
- BUSHKILL, TOMS CREEK AT EGYPT MILLS NEAR 309
- BUSHKILL CREEK, AT EASTON 57
  - NEAR EASTON 310
- BYBERRY CREEK, AT CHALFONT ROAD, PHILADELPHIA 128
  - AT GRANT AVENUE, PHILADELPHIA 314

- CALKINS CREEK, NORTH BRANCH NEAR DAMASCUS 312
- CATASAUQUA CREEK AT CATASAUQUA 310

Page

- CEDAR CREEK AT ALLENTOWN 318
- CELLS/VOLUME, DEFINITION OF 6
- CFS-DAY, DEFINITION OF 6
- CHADDS FORD, BRANDYWINE CREEK AT 278
- CHARLESTOWN, PICKERING CREEK AT 330
- CHEMICAL OXYGEN DEMAND, DEFINITION OF 7
- CHESTER, CHESTER CREEK NEAR 240
  - DELAWARE RIVER AT 243
- CHESTER CREEK, AT WESTTOWN SCHOOL 340
  - NEAR CHESTER 240
  - NEAR MILLTOWN 340
  - NEAR WEST CHESTER 335
  - EAST BRANCH, AT CHEYNEY 317
    - NEAR WEST CHESTER 312,317,340
  - WEST BRANCH NEAR CHESTER HEIGHTS 312,317
- CHESTER SPRINGS, PICKERING CREEK NEAR 205,326
- CHESTERVILLE, WEST BRANCH WHITE CLAY CREEK NEAR 340
- CHEYNEY, EAST BRANCH CHESTER CREEK AT 317
- CHLOROPHYLL, DEFINITION OF 7
- CHRISTINA RIVER BASIN, RESERVOIR IN 252
- COATESVILLE, SUCKER RUN NEAR 317
  - WEST BRANCH BRANDYWINE CREEK, AT 254
    - NEAR 345
- COBBS CREEK, AT DARBY 237
  - AT U.S. HIGHWAY NO. 1 AT PHILADELPHIA 235
- COLLEGEVILLE, SKIPPACK CREEK NEAR 209
- COLOR UNIT, DEFINITION OF 7
- CONTENTS, DEFINITION OF 7
- CONTROL, DEFINITION OF 7
- CONTROL STRUCTURE, DEFINITION OF 7
- COOKS CREEK AT DURHAM FURNACE 310
- COOPERATION 1
- COPLAY, LEHIGH RIVER AT 318
- COVENTRYVILLE, FRENCH CREEK NEAR 326
- CRESSONA, WEST BRANCH SCHUYLKILL RIVER, AT 164
  - NEAR 311,315
- CRUM CREEK, AT WOODLYN 311,316
  - EAST BRANCH NEAR PAOLI 335
  - NEAR NEWTOWN SQUARE 311,316
  - WEST BRANCH NEAR PAOLI 335
- CUBIC FEET PER SECOND PER SQUARE MILE, DEFINITION OF 7
- CUBIC FOOT PER SECOND, DEFINITION OF 7
- CUPOLA, EAST BRANCH BRANDYWINE CREEK NEAR 350

- DAMASCUS, NORTH BRANCH CALKINS CREEK NEAR 312
- DARBY, COBBS CREEK AT 237
  - DARBY CREEK NEAR 234
  - HERMESPROTA CREEK AT 311,316
- DARBY CREEK, AT UPPER DARBY 335
  - AT WATERLOO MILLS NEAR DEVON 233,335
  - NEAR DARBY 234
- DEFINITION OF TERMS 6
- DELAWARE BAY AT SHIP JOHN SHOAL LIGHTHOUSE 21
- DELAWARE RIVER, ABOVE LACKAWAXEN RIVER NEAR BARRYVILLE 25
  - AT BELVIDERE, NJ 45
  - AT BENJAMIN FRANKLIN BRIDGE AT PHILADELPHIA 150
  - AT BRISTOL, PA-BURLINGTON, NJ BRIDGE 120
  - AT CHESTER 243
  - AT DELAWARE MEMORIAL BRIDGE, NEAR WILMINGTON, DE 295
  - AT EASTON 49
  - AT EDDYSTONE 239
  - AT LEAGUE ISLAND, PHILADELPHIA 158
  - AT LEHIGH AVENUE, PHILADELPHIA 149
  - AT MARCUS HOOK 250
  - AT MONTAGUE, NJ 36
  - AT PORT JERVIS, NY 33
  - AT REEDY ISLAND JETTY, DE 302
  - AT TORRESDALE INTAKE AT PHILADELPHIA 130
  - AT TRENTON, NJ 102
  - AT WHARTON STREET, PHILADELPHIA 157
  - BELOW TOCKS ISLAND DAMSITE, NEAR DELAWARE WATER GAP 41
  - NEAR EAST STROUDSBURG 39
  - NEAR MARTINS CREEK 46

INDEX

Page
DELAWARE WATER GAP, DELAWARE RIVER BELOW TOCKS ISLAND DAMSITE, NEAR.... 41
DEVON, DARBY CREEK AT WATERLOO MILLS NEAR.... 233,335
DIATOMS, DEFINITION OF.... 8
DILLDOWN CREEK NEAR LONG POND.... 64
DISCHARGE, DEFINITION OF.... 7
DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES.... 309
DISSOLVED, DEFINITION OF.... 7
DIVERSITY INDEX, DEFINITION OF.... 7
DOE RUN, BUCK RUN NEAR.... 345
  NEAR SPRINGDALE.... 345
DOWNINGTOWN, EAST BRANCH BRANDYWINE CREEK, BELOW.... 270
    NEAR.... 267
  MARSH CREEK NEAR.... 264
DOWNSTREAM ORDER AND STATION NUMBERS.... 10
DOYLESTOWN, NESHAMINY CREEK NEAR.... 121
DRAINAGE AREA, DEFINITION OF.... 7
DRAINAGE BASIN, DEFINITION OF.... 7
DRY MASS, DEFINITION OF.... 6
DURHAM FURNACE, COOKS CREEK AT.... 310
DUTTON MILL, RIDLEY CREEK NEAR.... 335
DYBERRY CREEK, ABOVE RESERVOIR NEAR HONESDALE.... 309,313
  NEAR HONESDALE.... 29

EAGLE, PICKERING CREEK NEAR.... 326
EAST BANGOR, MARTINS CREEK NEAR.... 48
EAST BRANCH BRANDYWINE CREEK, AT GLENMOORE.... 350
  AT WAWASET.... 350
  BELOW DOWNINGTOWN.... 270
  NEAR CUPOLA.... 350
  NEAR DOWNINGTOWN.... 267
  NEAR GLENMOORE.... 350
  NEAR SCONNELTOWN.... 350
  NEAR STRUBLE DAM.... 345
EAST BRANCH CHESTER CREEK, AT CHEYNEY.... 317
  NEAR WEST CHESTER.... 312,317,340
EAST BRANCH CRUM CREEK NEAR PAOLI.... 335
EAST BRANCH MONOCACY CREEK NEAR BATH.... 314
EAST BRANCH PERKIOMEN CREEK AT SCHWENKSVILLE 330
EAST BRANCH WHITE CLAY CREEK AT LANDENBERG.... 312
EAST STERLING, WALLENPAUPACK CREEK AT.... 320
EAST STROUDSBURG, DELAWARE RIVER NEAR.... 39
EASTON, BUSHKILL CREEK AT.... 57
  BUSHKILL CREEK NEAR.... 310
  DELAWARE RIVER AT.... 49
  LEHIGH RIVER AT.... 90
EDDYSTONE, DELAWARE RIVER AT.... 239
ELK CREEK AT ELKVIEW.... 350
  NEAR OXFORD.... 350
ELKINS PARK, JENKINTOWN CREEK AT.... 146
ELKVIEW, ELK CREEK AT.... 350
EXPLANATION OF, GROUND-WATER LEVEL RECORDS.... 14
  STAGE AND WATER-DISCHARGE RECORDS.... 11
  WATER QUALITY RECORDS.... 13

FECAL COLIFORM BACTERIA, DEFINITION OF.... 6
FECAL STREPTOCOCCAL BACTERIA, DEFINITION OF. 6
FIVE POINT, RED CLAY CREEK NEAR.... 345
FORT WASHINGTON, PINE RUN TRIBUTARY AT.... 316
  WISSAHICKON CREEK AT.... 316
FRANCIS E. WALTER RESERVOIR.... 98
FRANKFORD CREEK, AT CASTOR AVENUE, PHILADELPHIA.... 323
  AT TORRESDALE AVENUE, PHILADELPHIA.... 148
FRENCH CREEK, AT PHOENIXVILLE.... 326
  NEAR COVENTRYVILLE.... 326
  NEAR KNAURERTOWN.... 326
  NEAR PHOENIXVILLE.... 202
  NEAR PUGHTOWN.... 326
  NEAR TRYTHALL.... 326

GAGE HEIGHT, DEFINITION OF.... 7
GAGING STATION, DEFINITION OF.... 7
GAGING STATION RECORDS.... 21
GENERAL EDGAR JADWIN RESERVOIR.... 32
GLENDON, LEHIGH RIVER AT.... 89
GLENMOORE, EAST BRANCH BRANDYWINE CREEK AT.... 350
  MARSH CREEK NEAR.... 263
GLENOLDEN, MUCKINIPATTIS CREEK AT.... 311,316
GOOSE CREEK NEAR WEST CHESTER.... 340
GOSHENVILLE, RIDLEY CREEK NEAR.... 335
GRADYVILLE, RIDLEY CREEK NEAR.... 335
GRATERFORD, PERKIOMEN CREEK AT.... 207

Page
GREELEY, SHOHOLA CREEK NEAR.... 318
GREEN ALGAE, DEFINITION OF.... 8
GREEN LANE RESERVOIR.... 232
GROUND-WATER LEVEL DATA.... 355

HARDNESS, DEFINITION OF.... 7
HATCHERY, WILD CREEK AT.... 68
HAWLEY, LACKAWAXEN RIVER AT.... 30
  MIDDLE CREEK NEAR.... 313
HELLERTOWN, POLK VALLEY RUN AT.... 314
  SAUCON CREEK NEAR.... 86
HENRYVILLE, PARADISE CREEK AT.... 309
HERMESPROTA CREEK AT DARBY.... 311,316
HOCKENDAUQUA CREEK NEAR NORTHAMPTON.... 310
HONESDALE, DYBERRY CREEK ABOVE RESERVOIR NEAR.... 309,313
  DYBERRY CREEK NEAR.... 29
  LACKAWAXEN RIVER NEAR.... 313
HONEY BROOK, WEST BRANCH BRANDYWINE CREEK NEAR.... 253
HOST, TULPEHOCKEN CREEK TRIBUTARY NEAR.... 318
HYDROLOGIC CONDITIONS.... 2
HYDROLOGIC UNIT, DEFINITION OF.... 7

INDIAN RUN NEAR SPRINGTON.... 350
INSTANTANEOUS DISCHARGE, DEFINITION OF.... 7
INTRODUCTION.... 1

JACKSONVILLE, LITTLE NESHAMINY CREEK AT.... 122
JACOBY CREEK AT PORTLAND.... 310
JENKINTOWN, TACONY CREEK NEAR.... 144
JENKINTOWN CREEK AT ELKINS PARK.... 146
JERICHO CREEK AT WASHINGTON CROSSING.... 310
JIM THORPE, LEHIGH RIVER AT.... 318
  NESQUEHONING CREEK AT.... 323
JORDAN CREEK, AT ALLENTOWN.... 80
  NEAR SCHNECKSVILLE.... 79

KENNETT SQUARE, RED CLAY CREEK NEAR.... 345
  WEST BRANCH RED CLAY CREEK NEAR.... 312
KIMBERTON, PICKERING CREEK TRIBUTARY NEAR.... 330
KNAURERTOWN, FRENCH CREEK NEAR.... 326
KRESGEVILLE, MIDDLE CREEK AT.... 310
  POHOPOCO CREEK AT.... 65

LACKAWAXEN, LACKAWAXEN RIVER AT MOUTH AT.... 320
LACKAWAXEN RIVER, AT HAWLEY.... 30
  AT MOUTH AT LACKAWAXEN.... 320
  AT WHITE MILLS.... 320
  NEAR HONESDALE.... 313
  WEST BRANCH, AT ALDENVILLE.... 309,313
    AT PROMPTON.... 28
LACKAWAXEN RIVER BASIN, LAKES AND RESERVOIRS IN.... 32
LAKE WALLENPAUPACK.... 32
LAKES AND RESERVOIRS:
  BELTZVILLE LAKE.... 98
  FRANCIS E. WALTER RESERVOIR.... 98
  GENERAL EDGAR JADWIN RESERVOIR.... 32
  GREEN LANE RESERVOIR.... 232
  LAKE WALLENPAUPACK.... 32
  MARSH CREEK RESERVOIR.... 252
  PENN FOREST RESERVOIR.... 98
  PROMPTON RESERVOIR.... 32
  STILL CREEK RESERVOIR.... 232
  WILD CREEK RESERVOIR.... 98
LANDENBERG, EAST BRANCH WHITE CLAY CREEK AT. 312
  MIDDLE BRANCH WHITE CLAY CREEK NEAR.... 317
LANDINGVILLE, SCHUYLKILL RIVER AT.... 165
LANGHORNE, NESHAMINY CREEK NEAR.... 124
LEESPORT, MAIDEN CREEK NEAR.... 181
LEHIGH RIVER, AT ALLENTOWN.... 318
  AT BETHLEHEM.... 82,85
  AT COPLAY.... 318
  AT EASTON.... 90
  AT GLENDON.... 89
  AT JIM THORPE.... 318
  AT STODDARTSVILLE.... 58
  AT WALNUTPORT.... 75
  BELOW FRANCIS E. WALTER LAKE NEAR WHITE HAVEN.... 63
LEHIGH RIVER BASIN, LAKE AND RESERVOIRS IN.. 98
LENHARTSVILLE, MAIDEN CREEK TRIBUTARY AT.... 178
LEWISVILLE, BIG ELK CREEK AT.... 318
  LITTLE ELK CREEK NEAR.... 318

Page
LITTLE CRUM CREEK AT MICHIGAN AVENUE, SWARTHMORE.................... 238
LITTLE ELK CREEK NEAR LEWISVILLE.............. 318
LITTLE GAP, BUCKWHA CREEK AT.................. 310,314
LITTLE LEHIGH CREEK AT ALLENTOWN.............. 318
  NEAR ALLENTOWN............................... 77
LITTLE NESHAMINY CREEK AT JACKSONVILLE....... 122
LITTLE NORTHKILL CREEK NEAR BERNVILLE........ 315
LITTLE SCHUYLKILL RIVER, AT PORT CLINTON.... 311,315
  AT TAMAQUA................................... 166
  NEAR TAMAQUA................................. 167
LITTLE VALLEY CREEK NEAR VALLEY FORGE........ 330
LONG POND, DILLDOWN CREEK NEAR............... 64
  TUNKHANNOCK CREEK NEAR...................... 60

MCMICHAEL CREEK NEAR STROUDSBURG............. 309,314
MAIDEN CREEK, AT VIRGINVILLE................. 180
  NEAR LEESPORT................................ 181
  TRIBUTARY AT LENHARTSVILLE................... 178
MANATAWNY, PINE CREEK NEAR................... 311,315
MANATAWNY CREEK NEAR POTTSTOWN............... 198
MANAYUNK, PHILADELPHIA, SCHUYLKILL RIVER AT. 210
MARCUS HOOK, DELAWARE RIVER AT............... 250
MARSH CREEK, NEAR DOWNINGTOWN................ 264
  NEAR GLENMOORE............................... 263
MARSH CREEK RESERVOIR........................ 252
MARTINS CREEK, AT MARTINS CREEK.............. 320
  BELOW LITTLE MARTINS CREEK AT MARTINS CREEK.......................... 310
  DELAWARE RIVER NEAR.......................... 46
  MARTINS CREEK BELOW LITTLE MARTINS CREEK AT.............................. 310
  NEAR EAST BANGOR............................. 48
MEAN CONCENTRATION, DEFINITION OF............ 9
MEAN DISCHARGE, DEFINITION OF................ 7
METHYLENE BLUE ACTIVE SUBSTANCE, DEFINITION OF.............................. 7
MICROGRAMS PER GRAM, DEFINITION OF........... 7
MICROGRAMS PER LITER, DEFINITION OF.......... 7
MIDDLE BRANCH WHITE CLAY CREEK NEAR LANDENBERG...................... 317
MIDDLE CREEK, AT KRESGEVILLE................. 310
  NEAR HAWLEY.................................. 313
MILFORD, VANDERMARK CREEK AT................. 313
MILL BROOK NEAR PAUPACK...................... 313
MILL CREEK, AT MOUNTAINHOME.................. 313
MILLIGRAMS PER LITER, DEFINITION OF.......... 8
MILLTOWN, CHESTER CREEK NEAR................. 340
MINISINK HILLS, BRODHEAD CREEK AT............ 43
MODENA, WEST BRANCH BRANDYWINE CREEK AT..... 255
MONOCACY CREEK, AT BETHLEHEM................. 84,318,323
  EAST BRANCH NEAR BATH........................ 314
  NEAR BETHLEHEM............................... 323
MONTAGUE, NJ, DELAWARE RIVER AT.............. 36
MOSELEM CREEK NEAR SHOEMAKERSVILLE........... 311
MOUNTAINHOME, MILL CREEK AT.................. 313
MOYLAN, RIDLEY CREEK AT...................... 312
MUCKINIPATTIS CREEK AT GLENOLDEN............. 311,316

NATURAL SUBSTRATE, DEFINITION OF............. 9
NAYLOR CREEK AT WEST CHESTER PIKE NEAR PHILADELPHIA.................... 236
NESHAMINY CREEK, NEAR DOYLESTOWN............. 121
  NEAR LANGHORNE............................... 124
NESQUEHONING CREEK AT JIM THORPE............. 323
NEWTOWN SQUARE, CRUM CREEK NEAR.............. 311,316
NORRISTOWN, STONY CREEK AT................... 311,316
NORTH BRANCH CALKINS CREEK NEAR DAMASCUS.... 313
NORTHAMPTON, HOCKENDAUQUA CREEK NEAR........ 310
NORTHKILL CREEK AT BERNVILLE................. 185,311,315
NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES........................... 10

ORGANIC MASS, DEFINITION OF.................. 6
ORGANISM, DEFINITION OF...................... 8
ORGANISM COUNT/AREA, DEFINITION OF........... 8
ORGANISM COUNT/VOLUME, DEFINITION OF......... 8
OTTSVILLE, TINICUM CREEK NEAR................ 310,314
OXFORD, ELK CREEK NEAR....................... 350

PALMERTON, AQUASHICOLA CREEK AT.............. 72
PAOLI, EAST BRANCH CRUM CREEK NEAR........... 335
  WEST BRANCH CRUM CREEK NEAR.................. 335
PARADISE CREEK AT HENRYVILLE................. 309
PARKER FORD, PIGEON CREEK NEAR............... 326

Page
PARRYVILLE, POHOPOCO CREEK AT................ 323
  POHOPOCO CREEK BELOW BELTZVILLE DAM NEAR.. 69
PARTIAL-RECORD STATION, DEFINITION OF....... 8
PARTICLE SIZE, DEFINITION OF................. 8
PARTICLE-SIZE CLASSIFICATION, DEFINITION OF. 8
PAUPACK, MILL BROOK NEAR..................... 313
PENN FOREST RESERVOIR........................ 98
PENNYPACK CREEK, AT FRANKFORD AVENUE, PHILADELPHIA.................... 143
  AT LOWER RHAWN STREET BRIDGE, PHILADELPHIA 140
  AT PINE ROAD, PHILADELPHIA................... 138
  AT WELSH ROAD NEAR ABINGTON.................. 137
  BELOW VERREE ROAD, PHILADELPHIA.............. 314
PERCENT COMPOSITION, DEFINITION OF........... 8
PERKIOMEN CREEK, AT GRATERFORD............... 207
  EAST BRANCH AT SCHWENKSVILLE................. 330
PESTICIDES, DEFINITION OF.................... 8
PHILADELPHIA, BYBERRY CREEK AT CHALFONT ROAD 128
  BYBERRY CREEK AT GRANT AVENUE................ 314
  COBBS CREEK AT U.S. HIGHWAY NO. 1 AT......... 235
  DELAWARE RIVER, AT BENJAMIN FRANKLIN BRIDGE AT............................ 150
    AT LEAGUE ISLAND............................ 158
    AT LEHIGH AVENUE............................ 149
    AT TORRESDALE INTAKE AT..................... 130
    AT WHARTON STREET........................... 157
  FRANKFORD CREEK, AT CASTOR AVENUE............ 323
    AT TORRESDALE AVENUE........................ 148
  NAYLOR CREEK AT WEST CHESTER PIKE NEAR....... 236
  PENNYPACK CREEK, AT FRANKFORD AVENUE......... 143
    AT LOWER RHAWN STREET BRIDGE................ 140
    AT PINE ROAD................................ 138
    BELOW VERREE ROAD........................... 314
  POQUESSING CREEK, ABOVE BYBERRY CREEK AT..... 314
    AT GRANT AVENUE............................. 129
    AT TREVOSE ROAD............................. 126
  ROCK CREEK ABOVE CURTIS ARBORETUM NEAR....... 145
  SCHUYLKILL RIVER, AT......................... 220
    AT MANAYUNK................................. 210
  STREAM 'A' AT................................ 139
  TACONY CREEK AT COUNTY LINE.................. 147
  WALTON RUN AT................................ 127
  WISSAHICKON CREEK, AT BELLS MILL ROAD........ 217
    AT LIVEZEY LANE............................. 316
    AT MOUTH.................................... 218
  WOODEN BRIDGE RUN, AT........................ 142
    AT GRANT AVENUE............................. 141
PHOENIXVILLE, FRENCH CREEK AT................ 326
  FRENCH CREEK NEAR............................ 202
  PICKERING CREEK NEAR......................... 330
  SCHUYLKILL RIVER AT.......................... 315
PHYTOPLANKTON, DEFINITION OF................. 8
PICKERING CREEK, AT CHARLESTOWN.............. 330
  NEAR CHESTER SPRINGS......................... 205,326
  NEAR EAGLE................................... 326
  NEAR PHOENIXVILLE............................ 330
  TRIBUTARY NEAR KIMBERTON..................... 330
PICOCURIE, DEFINITION OF..................... 8
PIGEON CREEK, NEAR BUCKTOWN.................. 326
  NEAR PARKER FORD............................. 326
  NEAR PORTERS MILL............................ 326
PIGEON RUN AT RAPPS CORNER................... 206
PINE CREEK NEAR MANATAWNY.................... 311,315
PINE RUN TRIBUTARY, AT FORT WASHINGTON...... 316
  NEAR AMBLER.................................. 214
PIPERSVILLE, TOHICKON CREEK NEAR............. 100
PLANKTON, DEFINITION OF...................... 8
POCONO CREEK NEAR STROUDSBURG................ 309
POHOPOCO CREEK, AT KRESGEVILLE............... 65
  AT PARRYVILLE................................ 323
  BELOW BELTZVILLE DAM NEAR PARRYVILLE......... 69
POLK VALLEY RUN AT HELLERTOWN................ 314
POLYCHLORINATED BIPHENYLS, DEFINITION OF.... 8
POQUESSING CREEK, ABOVE BYBERRY CREEK AT PHILADELPHIA.................... 314
  AT GRANT AVENUE, PHILADELPHIA................ 129
  AT TREVOSE ROAD, PHILADELPHIA................ 126
PORT CARBON, SCHUYLKILL RIVER AT............. 159
PORT CLINTON, LITTLE SCHUYLKILL RIVER AT.... 311,315
PORT JERVIS, NY, DELAWARE RIVER AT........... 33
PORT KENNEDY, SCHUYLKILL RIVER AT............ 316
PORTERS MILL, PIGEON CREEK NEAR.............. 326
PORTLAND, JACOBY CREEK AT.................... 310
POTTSTOWN, MANATAWNY CREEK NEAR.............. 198
  SCHUYLKILL RIVER AT.......................... 199

Page

POTTSVILLE, SCHUYLKILL RIVER AT.............. 162,311,315
PROMPTON, WEST BRANCH LACKAWAXEN RIVER AT... 28
PROMPTON RESERVOIR........................... 32
PROSPECT PARK, STONY CREEK AT................ 311,316
PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS................ 15
PUGHTOWN, FRENCH CREEK NEAR.................. 326

QUAKERTOWN, TOHICKON CREEK NEAR.............. 310,323

RAPPS CORNER, PIGEON RUN AT.................. 206
READING, SCHUYLKILL RIVER AT................. 195
  TULPEHOCKEN CREEK, AT BLUE MARSH DAMSITE NEAR.................................. 187
    NEAR..................................... 192
RED CLAY CREEK, AT WOODDALE, DE.............. 251
  NEAR FIVE POINT............................ 345
  NEAR KENNETT SQUARE........................ 345
  WEST BRANCH NEAR KENNETT SQUARE............ 312
REEDY ISLAND JETTY, DE, DELAWARE RIVER AT... 302
RESERVOIRS. SEE LAKES AND RESERVOIRS.
RIDLEY CREEK, AT DUTTON MILL NEAR WEST CHESTER................................ 312,317
  AT MOYLAN.................................. 312
  NEAR DUTTON MILL........................... 335
  NEAR GOSHENVILLE........................... 335
  NEAR GRADYVILLE............................ 335
ROCK CREEK ABOVE CURTIS ARBORETUM NEAR PHILADELPHIA............................ 145
RUNOFF IN INCHES, DEFINITION OF.............. 9

SACONY CREEK, ABOVE BOWERS................... 179
  NEAR VIRGINVILLE........................... 311,315
SANDY RUN NEAR WHITE HAVEN................... 310
SAUCON CREEK, AT BETHLEHEM................... 87
  NEAR HELLERTOWN............................ 86
SCHNECKSVILLE, JORDAN CREEK NEAR............. 79
SCHUYLKILL RIVER, AT BERNE................... 169
  AT LANDINGVILLE............................ 165
  AT MANAYUNK, PHILADELPHIA.................. 210
  AT PHILADELPHIA............................ 220
  AT PHOENIXVILLE............................ 315
  AT PORT CARBON............................. 159
  AT PORT KENNEDY............................ 316
  AT POTTSTOWN............................... 199
  AT POTTSVILLE.............................. 162,311,315
  AT READING................................. 195
  WEST BRANCH, AT CRESSONA................... 164
    NEAR CRESSONA............................ 311,315
SCHWENKSVILLE, EAST BRANCH PERKIOMEN CREEK AT.................................. 330
SCONNELLTOWN, EAST BRANCH BRANDYWINE CREEK NEAR................................ 350
SEDIMENT, DEFINITION OF...................... 9
SHAWNEE CREEK AT SHAWNEE ON DELAWARE......... 309
SHIP JOHN SHOAL LIGHTHOUSE, DELAWARE BAY AT. 21
SHOEMAKERS, BUSH KILL AT..................... 37
SHOEMAKERSVILLE, MOSELEM CREEK NEAR.......... 311
SHOHOLA CREEK NEAR GREELEY................... 318
  NEAR SHOHOLA............................... 318
SKIPPACK CREEK, AT ARCOLA.................... 330
  NEAR COLLEGEVILLE.......................... 209
SKIPPACK, ZACHARIAS CREEK NEAR............... 315
SOLUTE, DEFINITION OF........................ 9
SPECIAL NETWORKS AND PROGRAMS................ 11
SPECIFIC CONDUCTANCE, DEFINITION OF.......... 9
SPRING CITY, STONY RUN, AT................... 326
    NEAR..................................... 326
SPRINGTON, INDIAN RUN NEAR................... 350
STAGE-DISCHARGE RELATION, DEFINITION OF...... 9
STILL CREEK RESERVOIR........................ 232
STODDARTSVILLE, LEHIGH RIVER AT.............. 58
STONY CREEK, AT NORRISTOWN................... 311,136,316
  AT PROSPECT PARK........................... 311,316
STONY RUN, AT SPRING CITY.................... 326
  NEAR SPRING CITY........................... 326
STREAM 'A' AT PHILADELPHIA................... 139
STREAMFLOW, DEFINITION OF.................... 9
STRICKERSVILLE, WHITE CLAY CREEK NEAR........ 340
STROUDSBURG, MCMICHAEL CREEK NEAR............ 309,314
  POCONO CREEK NEAR.......................... 309
STRUBLE DAM, EAST BRANCH BRANDYWINE CREEK NEAR................................ 345

Page

SUBSTRATE, DEFINITION OF..................... 9
SUCKER RUN NEAR COATESVILLE.................. 317
SURFACE AREA, DEFINITION OF.................. 9
SURFICIAL BED MATERIAL, DEFINITION OF........ 9
SUSPENDED, DEFINITION OF..................... 9
SUSPENDED SEDIMENT, DEFINITION OF............ 9
SUSPENDED-SEDIMENT CONCENTRATION, DEFINITION OF.............................. 9
SUSPENDED-SEDIMENT DISCHARGE, DEFINITION OF. 9
SUSPENDED-SEDIMENT LOAD, DEFINITION OF...... 9
SWARTHMORE, LITTLE CRUM CREEK AT MICHIGAN AVENUE........................ 238

TACONY CREEK, AT COUNTY LINE, PHILADELPHIA.. 147
  NEAR JENKINTOWN............................ 144
TAMAQUA, LITTLE SCHUYLKILL RIVER AT.......... 166
  LITTLE SCHUYLKILL RIVER NEAR............... 167
TAXONOMY, DEFINITION OF...................... 9
TIME-WEIGHTED AVERAGE, DEFINITION OF......... 10
TINICUM CREEK NEAR OTTSVILLE................. 310,314
TOBYHANNA CREEK NEAR BLAKESLEE............... 61
TOHICKON CREEK, NEAR PIPERSVILLE............. 100
  NEAR QUAKERTOWN............................ 310,323
TOMS CREEK AT EGYPT MILLS NEAR BUSHKILL..... 309
TONS PER ACRE-FOOT, DEFINITION OF............ 10
TONS PER DAY, DEFINITION OF.................. 10
TOTAL COLIFORM BACTERIA, DEFINITION OF...... 10
TOTAL LOAD, DEFINITION OF.................... 10
TOTAL ORGANISM COUNT, DEFINITION OF.......... 8
TOTAL SEDIMENT DISCHARGE, DEFINITION OF..... 9
TRENTON, NJ, DELAWARE RIVER AT............... 102
TRYTHALL, FRENCH CREEK NEAR.................. 326
TULPEHOCKEN CREEK, AT BERNVILLE.............. 183
  AT BLUE MARSH DAMSITE NEAR READING......... 187
  NEAR BERNVILLE............................. 182
  NEAR READING............................... 192
  TRIBUTARY NEAR HOST........................ 318
TUNKHANNOCK CREEK NEAR LONG POND............. 60

UPPER DARBY, DARBY CREEK AT.................. 335

VALLEY CREEK, AT VALLEY FORGE STATE PARK.... 330
  NEAR VALLEY FORGE.......................... 318,330
VALLEY FORGE, LITTLE VALLEY CREEK NEAR...... 330
  VALLEY CREEK NEAR.......................... 318,330
VALLEY FORGE STATE PARK, VALLEY CREEK AT.... 330
VANDERMARK CREEK AT MILFORD.................. 313
VIRGINVILLE, MAIDEN CREEK AT................. 180
  SACONY CREEK NEAR.......................... 311,315

WRD, DEFINITION OF........................... 10
WSP, DEFINITION OF........................... 10
WALLENPAUPACK CREEK, AT EAST STERLING....... 320
  AT WILSONVILLE............................. 31
WALNUTPORT, LEHIGH RIVER AT.................. 75
WALTON RUN AT PHILADELPHIA................... 127
WASHINGTON CROSSING, JERICHO CREEK AT....... 310
WAWASET, EAST BRANCH BRANDYWINE CREEK AT.... 350
  WEST BRANCH BRANDYWINE CREEK AT............ 345
WEATHERLY, BLACK CREEK AT.................... 320
WEIGHTED AVERAGE, DEFINITION OF.............. 10
WEST BRANCH BRANDYWINE CREEK, AT COATESVILLE 254
  AT MODENA.................................. 255
  AT WAWASET................................. 345
  NEAR COATESVILLE........................... 345
  NEAR HONEY BROOK........................... 253
WEST BRANCH CHESTER CREEK NEAR CHESTER HEIGHTS.................................. 312,317
WEST BRANCH CRUM CREEK NEAR PAOLI............ 335
WEST BRANCH LACKAWAXEN RIVER, AT PROMPTON... 28
  NEAR ALDENVILLE............................ 309,313
WEST BRANCH RED CLAY CREEK NEAR KENNETT SQUARE................................... 312
WEST BRANCH SCHUYLKILL RIVER, AT CRESSONA... 164
  NEAR CRESSONA.............................. 311,315
WEST BRANCH WHITE CLAY CREEK NEAR CHESTERVILLE.................................... 340
WEST CHESTER, CHESTER CREEK NEAR............. 335
  EAST BRANCH CHESTER CREEK NEAR............. 312,317,340
  GOOSE CREEK NEAR........................... 340
  RIDLEY CREEK AT DUTTON MILL NEAR........... 312,317
WESTTOWN SCHOOL, CHESTER CREEK AT............ 340
WET MASS, DEFINITION OF...................... 6

INDEX

Page

WHITE CLAY CREEK, EAST BRANCH AT LANDENBERG. 312
  MIDDLE BRANCH NEAR LANDENBERG.............. 317
  NEAR AVONDALE.............................. 340
  NEAR STRICKERSVILLE........................ 340
  NEAR WICKERTON............................. 340
  WEST BRANCH NEAR CHESTERVILLE.............. 340
WHITE HAVEN, LEHIGH RIVER BELOW FRANCIS E.
    WALTER LAKE NEAR......................... 63
  SANDY RUN NEAR............................. 310
WHITE MILLS, LACKAWAXEN RIVER AT............. 320
WICKERTON, WHITE CLAY CREEK NEAR............. 340
WILD CREEK AT HATCHERY....................... 68
WILD CREEK RESERVOIR......................... 98
WILMINGTON, DE, BRANDYWINE CREEK AT.......... 290
  DELAWARE RIVER AT DELAWARE MEMORIAL
    BRIDGE, NEAR............................. 295

Page

WILSONVILLE, WALLENPAUPACK CREEK AT.......... 31
WISSAHICKON CREEK, AT AMBLER................. 215
  AT BELLS MILL ROAD, PHILADELPHIA........... 217
  AT FORT WASHINGTON......................... 316
  AT LIVEZEY LANE, PHILADELPHIA.............. 316
  AT MOUTH, PHILADELPHIA..................... 218
WOODDALE, DE, RED CLAY CREEK AT.............. 251
WOODEN BRIDGE RUN, AT GRANT AVENUE, PHILADELPHIA... 141
  AT PHILADELPHIA............................ 142
WOODLYN, CRUM CREEK AT....................... 311,316

ZACHARIAS CREEK NEAR SKIPPACK................ 315
ZOOPLANKTON, DEFINITION OF................... 8

FACTORS FOR CONVERTING U.S. CUSTOMARY UN ATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the U.S. customary units published herein to the International System of Units (SI). Subsequent reports will contain both the U.S. customary and SI unit equivalents in the station manuscript descriptions until such time that all data will be published in SI units.

Multiply U.S. customary units	By	To obtain SI units
	Length	
inches (in)	$2.54x10^{1}$	millimeters (mm)
	$2.54x10^{-2}$	meters (m)
feet (ft)	$3.048x10^{-1}$	meters (m)
miles (mi)	$1.609x10^{0}$	kilometers (km)
	Area	
acres	$4.047x10^{3}$	square meters (m^2)
	$4.047x10^{-1}$	square hectometers (hm^2)
	$4.047x10^{-3}$	square kilometers (km^2)
square miles (mi^2)	$2.590x10^{0}$	square kilometers (km^2)
	Volume	
gallons (gal)	$3.785x10^{0}$	liters (L)
	$3.785x10^{0}$	cubic decimeters (dm^3)
	$3.785x10^{-3}$	cubic meters (m^3)
million gallons	$3.785x10^{3}$	cubic meters (m^3)
	$3.785x10^{-3}$	cubic hectometers (hm^3)
cubic feet (ft^3)	$2.832x10^{1}$	cubic decimeters (dm^3)
	$2.832x10^{-2}$	cubic meters (m^3)
cfs-days	$2.447x10^{3}$	cubic meters (m^3)
	$2.447x10^{-3}$	cubic hectometers (hm^3)
acre-feet (acre-ft)	$1.233x10^{3}$	cubic meters (m^3)
	$1.233x10^{-3}$	cubic hectometers (hm^3)
	$1.233x10^{-6}$	cubic kilometers (km^3)
	Flow	
cubic feet per second (ft^3/s)	$2.832x10^{1}$	liters per second (L/s)
	$2.832x10^{1}$	cubic decimeters per second (dm^3/s)
	$2.832x10^{-2}$	cubic meters per second (m^3/s)
gallons per minute (gal/min)	$6.309x10^{-2}$	liters per second (L/s)
	$6.309x10^{-2}$	cubic decimeters per second (dm^3/s)
	$6.309x10^{-5}$	cubic meters per second (m^3/s)
million gallons per day	$4.381x10^{1}$	cubic decimeters per second (dm^3/s)
	$4.381x10^{-2}$	cubic meters per second (m^3/s)
	Mass	
tons (short)	$9.072x10^{-1}$	megagrams (Mg) or metric tons